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The American Economic Review

Vol. XVI, No. 1

SUPPLEMENT

March, 1926

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Papers and Proceedings
of the
Thirty-eighth Annual Meeting
of the
American Economic Association

NEW YORK, N. Y.

DECEMBER, 1925

Edited by the Secretary of the Association

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MOND
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240 PROGRAM OF THE THIRTY-EIGHTH ANNUAL MEETING

250 MONDAY, December 28

265 2:30 P.M. FIRST SESSION (Joint Meeting with the American Statistical Association
280 and American Association for Labor Legislation)

284 Presiding Officer: Sam A. Lewisohn

299 General Topic: THE MOVEMENT OF REAL WAGES

303 Paper: THE BEST MEASURE OF REAL WAGES

316 Alvin H. Hansen, University of Minnesota

Paper: THE MOVEMENT OF REAL WAGES AND ITS ECONOMIC SIGNIFICANCE

325 Paul H. Douglas, University of Chicago

328 Paper: REAL WAGES AND THE CONTROL OF INDUSTRY

331 Alvin Johnson, The New Republic

Discussion:

331 George Soule, Labor Bureau, Inc.

339 David A. McCabe, Princeton University

340 Magnus W. Alexander, National Industrial Conference Board

342 Paul F. Brissenden, National Bureau of Economic Research

344 8:00 P.M. SECOND SESSION (Joint Meeting with American Political Science
Association)

344 Presiding Officer: Frederic R. Coudert

344 PRESIDENTIAL ADDRESSES:

345 THE PROGRESS OF POLITICAL RESEARCH

349 Charles E. Merriam, American Political Science Association¹

350 WAR AND ECONOMICS

353 Allyn A. Young, American Economic Association²

358 TUESDAY, December 29

8:30 A.M. MEETING OF THE EXECUTIVE COMMITTEE

9:00 A.M. BUSINESS MEETING: Reports of officers and committees, etc.

10:15 A.M. ROUND TABLE CONFERENCES

1. TEACHING OF ECONOMICS

Chairman, H. H. Burbank, Harvard University

Discussion:

Raymond T. Bye, University of Pennsylvania

W. E. Weld, Columbia University

Frank A. Fetter, Princeton University

2. THE CONSUMING POWER OF LABOR AND BUSINESS FLUCTUATIONS

Chairman, Herbert Feis, University of Cincinnati

Discussion:

John P. Frey, Ohio Federation of Labor

Waddill Catchings, New York City

William A. Berridge, Brown University

3. ECONOMIC PROBLEMS INVOLVED IN THE PAYMENT OF INTERNATIONAL DEBTS

Chairman, Harold G. Moulton, Institute of Economics

Discussion:

Jacob Viner, University of Chicago

Alexander D. Noyes, The New York Times

James W. Angell, Columbia University

G. W. Edwards, New York University

Leo Pasvolksy, Institute of Economics

¹Will be published by The American Political Science Association.

²Published in the *American Economic Review*, March, 1926.

4. ECONOMICS AND GEOGRAPHY

Chairman, O. E. Baker, Bureau of Agricultural Economics, U. S. Department of Agriculture

Discussion:

R. T. Ely, Institute of Land Economics

H. C. Taylor, Institute of Land Economics ("Geographic Basis Essential to the Guidance of Agricultural Production")

John E. Orchard, Columbia University ("The Contribution of Geography to Economic Research in the Production of the Minerals")

Isaiah Bowman, American Geographical Society ("Geography and Economics in a Study of Pioneer Belts")¹

G. B. Roorbach, Harvard University ("Regional Geography and Economics")

Helen M. Strong, Department of Commerce ("Geography in the Foreign Trade Prospects of the United States")

E. Dana Durand, Department of Commerce ("Geography in the Foreign Trade Prospects of England and Germany")

2:30 P.M. THIRD SESSION (Joint Meeting with American Farm Economic Association)

Presiding Officer: G. F. Warren

General Topic: AGRICULTURE IN OUR NATIONAL POLICY

Paper: NATIONAL AGRICULTURAL POLICY

John D. Black, University of Minnesota

Paper: OUR RURAL POPULATION DEBACLE

Carl C. Taylor, North Carolina State College

Discussion:

L. L. Bernard, Cornell University

Edwin G. Nourse,² Institute of Economics

O. S. Morgan, Columbia University

8:00 P.M. FOURTH SESSION

Presiding Officer: Allyn A. Young

General Topic: TARIFF MAKING

Paper: THE UNITED STATES TARIFF COMMISSION

F. W. Taussig, Harvard University

Paper: THE FLEXIBLE TARIFF AND THE SUGAR INDUSTRY

Joshua Bernhardt, New York City

Discussion:

T. W. Page, Institute of Economics

F. R. Rutter, Dartmouth College

F. D. Graham, Princeton University

WEDNESDAY, December 30

10:00 A.M. FIFTH SESSION

Presiding Officer: Eliot Jones

General Topic: TRADE ASSOCIATIONS

Paper: THE TRADE ASSOCIATION MOVEMENT

I. L. Sharfman, University of Michigan

Paper: STATISTICAL ACTIVITIES OF TRADE ASSOCIATIONS

G. C. Henderson, New York City

¹For information regarding this paper, write to Mr. Bowman, American Geographical Society, Broadway at 156th Street, New York City.

²Did not supply manuscript.

Discussion:

Wilson Compton, National Lumber Manufacturers Association
Myron W. Watkins, University of Missouri
Virgil Jordan, National Industrial Conference Board
Hugh P. Baker,¹ American Paper and Pulp Association
Gilbert Montague, New York City

2:00 P.M. ROUND TABLE CONFERENCES

1. THE THEORY OF WAGES

Chairman, G. A. Kleene, Trinity College

Discussion:

Richard S. Merriam, Amherst College
Sumner H. Slichter, Cornell University
Raymond T. Bye, University of Pennsylvania
Albert B. Wolfe, Ohio State University
John P. Frey, Ohio Federation of Labor
Herbert Feis,¹ University of Cincinnati

2. FEDERAL TAXES

Chairman, T. S. Adams,² Yale University

Discussion:

Paul Armitage, New York City
Arthur A. Ballantine, New York City
Robert M. Haig, Columbia University
George O. May, Price, Waterhouse and Company
Hugh Satterlee, New York City
Edwin R. A. Seligman, Columbia University
H. T. Warshow, National Lead Company

3. UNEMPLOYMENT INSURANCE (Joint Meeting with American Association for Labor Legislation²)

Chairman, R. H. Blanchard, Columbia University

Discussion:

R. A. Hohaus, Assistant Actuary, Metropolitan Life Insurance Co.
B. M. Squires, Chairman, Trade Board Men's Clothing Industry,
Chicago
Leo Wolman, New School for Social Research

8:00 P.M. ROUND TABLE CONFERENCES

1. REDUCING THE COSTS OF MARKETING

Chairman, Fred E. Clark, Northwestern University

THE PROGRAM OF THE DEPARTMENT OF COMMERCE

A. Heath Onthank, Bureau of Foreign and Domestic Commerce

THE PROGRAM OF THE CHAMBER OF COMMERCE OF THE U. S. A.

Alvin E. Dodd, Chamber of Commerce of the U. S. A.

LOWERING COSTS THROUGH IMPROVEMENTS IN RETAILING

Paul H. Nystrom, Columbia University

MARKET ANALYSIS AS AN AID TO LOWERED MARKETING COSTS

Claire E. Griffin, University of Michigan

¹Did not supply manuscript.

²Will be published by American Association for Labor Legislation.

Discussion:

- L. S. Lyon, Robert Brookings Graduate School
 W. E. Freeland,¹ Massachusetts Institute of Technology
 H. R. Tosdal,¹ Harvard University
 E. D. McGarry, University of West Virginia

2. TOPICS IN ECONOMIC HISTORY

Chairman, E. F. Gay, Harvard University

Discussion:

- C. W. Wright, University of Chicago ("The Significance of the Disappearance of Free Land in Our Economic Development")
 I. Lippincott, Washington University ("The Operation of the Sherman Anti-Trust Law")
 Clive Day, Yale University ("The English Industrial Organization in 1840")
 N. S. B. Gras, University of Minnesota ("The Chief Steps in the Decline of an English Manor")
 A. P. Usher, Harvard University ("Proposed Investigation of the Price Revolution of the 16th Century in Spain")

3. RAILWAY PROBLEMS

Chairman, F. H. Dixon, Princeton University

Discussion:

- Max O. Lorenz, Institute Commerce Commission ("Section 15A")
 Eliot Jones, Stanford University ("The Transcontinental Problem")
 William Z. Ripley, Harvard University ("Consolidation")
 Winthrop M. Daniels, Yale University ("Motor Competition")
 Sumner H. Slichter, Cornell University ("Railroad Labor Board")

4. LAND ECONOMICS

Chairman, B. H. Hibbard, University of Wisconsin

Discussion:

- L. C. Gray, Bureau of Agricultural Economics ("Land Economics as a Field of Research")
 R. T. Ely, Institute of Land Economics ("Progress in Land Economics as a College Subject")
 H. B. Dorau ("The Place of Urban Land in the Field of Economics")

THURSDAY, December 31

9:00 A.M. BUSINESS MEETING: Election of Officers, etc.

10:00 A.M. SIXTH SESSION

Presiding Officer: Owen D. Young

General Topic: FEDERAL RESERVE POLICIES

Paper: THE RECENT WORK OF THE FEDERAL RESERVE ADMINISTRATION

H. L. Reed, Cornell University

Paper: INTERNATIONAL ASPECTS OF FEDERAL RESERVE POLICY

H. A. E. Chandler, National Bank of Commerce

Discussion:

- B. F. Beckhart, Columbia University
 E. M. Patterson,¹ University of Pennsylvania

12:30 P.M. MEETING OF THE EXECUTIVE COMMITTEE

¹Did not supply manuscript.

THE BEST MEASURE OF REAL WAGES

BY ALVIN H. HANSEN

University of Minnesota

Henry George's "Progress and Poverty" was published in 1879. The central thesis of that remarkable book was that all the forces of progress, so called, were driving a wedge horizontally through society, making the poor poorer and the rich richer. What were the facts in the case? Nobody knew. Common experience was not able to give a convincing answer. Scores and hundreds of individual instances could be cited to prove opposite theses. But the chart of the economic well-being of the wage-earning class had not been plotted. No one knew whither the genie of industrialism with its inventions and and improved processes was leading us. Classical economics in its dynamic aspects had been pessimistic. Ricardo believed that increasing population in spite of inventions and improvements would force cultivation to a lower margin of production; profits, the share of the residual claimant, would fall; accumulation would be checked; the demand for labor would accordingly decline; and wages would gradually be forced down. Karl Marx carried this pessimism a step farther. He held, contrary to the Ricardian analysis, that inventions also tended to reduce real wages, that they resulted in increasing drafts upon capital accumulation since machinery necessitates a larger proportion of fixed capital leaving less for the variable capital out of which labor is paid. Henry George's pessimism ran the full gamut. All the elements of progress—not only increasing population, but inventions and even increased capital accumulation—tended to make labor redundant, to force it out upon a lower margin of cultivation, leaving a lower return to the wage-earner in spite of the fact that the per capita product was constantly rising, the benefits from this increased productivity accruing to the landlord class. This analysis was challenged theoretically by the American optimist, Francis A. Walker, who claimed that to the laborer fell eventually all the fruits of mechanical progress with its inventions and capital accumulations. It was not long before the opponents appealed to the facts. Sir Robert Giffen, four years after the appearance of "Progress and Poverty," read his paper on "The Progress of the Working Classes in the Last Half Century." His conclusion was that labor had made a gain of from 50 to 100 per cent, and by 1886 he was convinced that the latter figure came nearer the truth. Numerous investigators in all the leading industrial nations have followed up the researches of

Giffen, and as the outlines of the picture have become clearer with the increasing mass of statistical evidence, on the whole his conclusions have been sustained.

Yet there has been much debate both in England and in the United States as to whether the wage-earning class gained or lost ground in the quarter of a century following 1890. All the investigations are in point of fact inconclusive. Not only is the available data far short of the requirements set by the problem, but the problem itself is elusive.

There are at least three possible concepts of real wages: (1) the quantum of goods and services received in return for a given quantum of labor; (2) the quantum of goods and services received for the production of a given quantum of goods and services; (3) the quantum of goods and services received per capita by the wage-earning class as a reward for their labor without regard to the quantum of labor expended or the quantity of goods produced. The first views the problem from the standpoint of the wage-earner suffering certain disutilities in performing his function. The second views the problem from the standpoint of the wage-earner as a factor in production, and raises the question: What share of the total product goes to the factor, labor? The third, and most common, conceives the problem of real wages from the standpoint of the wage-earner as a consumer concerned with the problem of securing want-satisfying goods and services.

Indexes of real wages which run in terms of the first concept have usually been constructed from hourly earnings. The effort is made to ascertain whether the wage-earning class is getting more or less than formerly from a given quantity of work. But an interval of time is not a satisfactory index of work. It is a wholly unsatisfactory standard from which to measure the work energy yielded up by labor. The work may have speeded up or there may have been restriction of output and slowing down. Moreover, if we take output as our standard we shall fail to measure the work energy expended, because increased output may be due to the introduction of machinery, scientific management and other improved methods. There is probably no way of measuring accurately the work energy or ergs yielded by labor from time to time, and even though there were, there would still remain the problem of measuring work energy in terms of fatigue, disutility, routine, monotony, etc. Possibly the wage-earning class may have gained in physical strength and thus offer greater resistance to fatigue. Or again the nature of the work itself may have changed, having become heavier or lighter, more or less monotonous, etc.

The second concept runs in terms of functional distribution. It raises the question of labor cost per unit of output in terms of the

products produced. It is a relative, not an absolute, concept. With the increasing development of capitalistic production a smaller and smaller *percentage* of the total product of industry goes to labor.

The third concept, and the more usual one, runs in terms of economic welfare; that is, the material well-being of the wage-earning class in so far as this is dependent upon the goods and services received from the sale of their labor. Earnings, not rates, are required for this purpose. To be sure, shorter hours and leisure have an important bearing upon economic welfare; but this is a problem for separate study and should not be confused with the problem of real wages. Fluctuations in employment must be taken account of, and therefore annual earnings¹ must be used. Average weekly earnings if corrected for unemployment may serve the purpose. The latter is the method employed by George H. Wood in his study of real wages in England. However, neither of these methods completely satisfies the requirements. The method suggested by Giffen, which he was, however, unable to follow for lack of data, was "to draw up an account of the aggregate annual earnings of the working classes for a period of fifty years ago, and a similar account of the aggregate annual earnings of the same classes at the present time, and then compare the average per head and per family at the different dates." The pay-roll method used by Berridge in his "Purchasing Power of the Consumer" also comes essentially to the same thing.² This method takes account of various factors which deeply affect the wage-earning classes, but which would not be taken account of if average annual earnings or weekly earnings, corrected for unemployment, were used. These factors are: (1) changes in the size of the family; (2) changes in the proportion of members of the family normally working.

Even the method proposed by Giffen does not completely satisfy the requirements. It does not take account of those invisible items that do not appear in the pay envelope—free public services, such as those furnished by public schools, parks, museums, and libraries; workmen's compensation or the various funds established by many employers either separately or by joint action with the employees; sickness funds; unemployment funds, etc. Conversely it does not take account of certain deductions that must be made from *gross wages*, such as contributions to trade-unions as trade-unions proper, not as

¹I here mean actual earnings. It is true, as Mr. Soule pointed out in his criticism of my paper of last March, that the Census data give the material for calculating annual earnings only from the average number on the pay roll; but even so, such annual earnings are low in depression years (as an inspection of the figures will readily show) due to part-time unemployment.

²See also my article on "The Buying Power of Labor During the War," *J. of Am. Stat. Assoc.* (March, 1922).

benefit societies, which contributions, at least so many wage-earners think, are necessary under a capitalistic order and therefore constitute necessary expenses in the efficient marketing and sale of their labor.

Nor does Giffen's method take account, as his critics pointed out, of perquisites of various sorts—free meals, etc., supplementary aid in the form of poor relief either from the state or voluntary agencies, which indirectly may be said to be a part of the necessary payment made by society for the services of labor. Moreover, it does not take account of goods formerly free that under a more populous and complex order have become economic—water, spacious lots, fresh air, close proximity to work, etc. Finally, it does not take account of changes in the efficiency of the housewife and other members of the family in converting a given money income into want-satisfying goods. To this last point I shall revert later.

But other obstacles are now encountered. The attempt is made to convert the money wages of different periods into economic goods and services. Here we encounter the grave difficulty that the stream of economic goods and services changes from year to year. Two periods far removed in point of time have indeed few economic goods in common. How then can you measure the money wages of these two periods in terms of economic goods when there is no common denominator? What would it cost in the year 1925 to live as people lived in 1875? The problem as stated is insolvable for in point of fact people do not live now as they did fifty years ago, and it is impossible to ascertain the present cost of the 1875 budget since the precise commodities and services consumed in that period are now for the most part no longer produced. Nor is the converse proposition any more feasible. In 1875 people could not live as they now do at any price for the good and sufficient reason that such manner of living was not then available.

But it would be an extreme view to assert, as some critics have, that the commonly used method of converting money wages into real wages is entirely futile. The common method is, as described by Bowley, "to estimate (generally by direct investigation) a budget of actual expenditure for food, clothing, rent, etc., of an average working class family at some selected date, and taking this budget as basis, to compute from time to time the cost of precisely the same quantities of goods of the same description and quality at current prices and compare the aggregate of these costs with the cost of the basic budget." It is true that if the period studied is considerable, it becomes necessary to alter the budget, to make substitutions, etc. This is permissible in so far as the changed budget represents no change in standard.

"It ought to be admitted," says Bowley, in discussing the war period, "that a permanent change in consumption, without any necessary reduction in standard, is almost certain to be found when a post-war period is compared with a pre-war period, and therefore that the measurement of change of prices on the assumption of an unchanged budget cannot properly be carried over the years 1914 to 1920. But the problem of constructing an equivalent budget and comparing its cost with that of an earlier one presents many difficulties and there is no agreement as to its solution." Moreover periods far removed in point of time may be compared not directly through a common identical budget, but indirectly by comparing each to identical budgets in intervening years that serve as links in the chain. In the year in which the change is made, two separate budgets are constructed—one based on the commodities used before making the additions, subtractions, or substitutions; the other on the new list of commodities. Thus comparison between any two years is limited to identical commodities. This is the method used by the Bureau of Labor Statistics. But additions, subtractions, and substitutions of this sort merely help to make more inclusive the number of commodities for which price changes are estimated; they do not in any way bridge the gap between the old and the new standard. The changes from stoves to furnace heat, from candles and kerosene lamps to electric lights, from well water to running water are not registered in the cost of living index. Nor indeed should they be, for if you allow changes in the standard to appear in the cost of living index, you would be begging the question; you would be introducing as a measure the thing you are trying to measure. It is therefore clear that the fixed budget or fixed standard method has severe limitations. It is incapable of measuring certain things which are the very heart of the problem. It cannot measure changes in quality, nor can it measure the effect of the transition from old to new commodities. It deals only with price and wage changes, but is baffled when confronted with changes in the nature and quality of the goods and services themselves.

But perhaps it is impossible to find something other than changing material things that will make two distinct periods commensurable, something that runs in terms of human life, common to all mankind in all ages and in all times. The money wages of the two periods instead of being measured in terms of the cost of precisely a certain quantity of goods of identical quality, may be measured in terms of the cost of maintaining a certain precise standard of health and efficiency. Here the method of Rowntree used in his study of poverty in York is enlightening. "We confine," he says, "our attention at

present simply to an estimate of minimum necessary expenditures for the maintenance of merely physical health." Food *quantity* he measured in terms of calories, the number of calories requisite for adult males, women, and children being graded according to Atwater's researches. The *kind* of diet selected to make up this number of calories he adopted from the cheapest rations specified in the regulations of the local government board for work houses. His aim was to select a standard diet which would give adequate nutriment at the lowest practicable cost. In estimating the necessary minimum expenditure for rent he would have preferred some reliable standard of the "accommodation required to maintain families of different sizes in health, and then to take as the minimum expenditure the average cost in York of such accommodations." But since in fact it would have been impossible for every family in York to obtain this needful minimum accommodation because of inadequate housing facilities, he concluded to fall back on the actual rent paid. But in so doing he of course failed to live up to the standard which he set for himself; viz., to estimate the necessary minimum expenditure for the maintenance of physical health. With respect to clothes he gathered from a large number of working people information as to the clothing necessary to keep a man in health and not so shabby as to injure his chances of obtaining respectable employment. "Apart from these two conditions, the clothing was to be the most economical obtainable." With respect to fuel, light, and other sundries he made estimates based on interviews and made no effort to ascertain a scientific standard of consumption requisite for health and efficiency.

The method suggested by Rowntree, but not fully carried out by him, has certain important merits which recommend it. It gets away from the artificiality of a fixed budget consisting of specified goods of a definite quantity and quality. No such common budget in fact exists between any two countries or between two periods separated by any considerable period of time. The Rowntree method applied to the determination of relative real wages of different periods or places has a fixed standard as a common denominator, but that standard runs in terms of calories, vitamins, thermal units of fuel and clothing, and cubic inches of air space. The *form* of the goods rendering these services may, and in fact does, vary from time to time and from place to place, but the requisite heat units needed to maintain health form a fixed standard which makes the various periods and places commensurable. However the calories, vitamins, thermal units, and air space needed to maintain health vary with race, climate, and nature of work. A separate scale would have to be drawn for different por-

tions of the globe, for different types of industry and trade, and for the various races. These limitations are suggested by Francisco S. Nitti in a paper in the *Economic Journal* in 1896 in which he advanced the thesis that within limits determined by race, climate, and nature of work, labor force grows in direct ratio to food.

Viewing the Rowntree method from a somewhat different angle, the death rate may be used as an index of real wages, and, in fact, Rowntree makes much of the death rate in comparing the different income levels. If the income is insufficient to maintain the family in health, it follows that the death rate will be high. Nitti, also, utilizes this method of comparison. "Partial starvation," he says, "does not act at one blow, nor does it kill, but the people or the class afflicted by it either pines slowly, or does not develop. Slackness in muscular vigor, which is made especially evident in weak labor energy, low stature, an irrepressible tendency to compensating idleness, an emaciated aspect, a low power of resisting disease—these are the inevitable effects of this kind of starvation." The adult workman often succeeds in shifting the evil to his family, himself being relatively well fed in order to maintain his place in the race for jobs, but his family being undernourished. Hence the high infant mortality that goes with low wages. Thus the degree to which incomes fall below the minimum of health standard may be measured with some degree of accuracy by the death rate. Other indexes used by Rowntree are weight and height.

The Rowntree method measures the purchasing power of money wages in terms of a minimum health standard. The greater the surplus above this minimum the more imperfect this standard becomes as a measure of real wages. Compare two periods in which the money wages in the former will purchase one and one-half minimum health budgets while in the latter three such budgets could be purchased. It is clear that only portions of the two standards of consumption are comparable. The surplus enjoyed in either period is of course not spent on the minimum budget, and can therefore not be measured in terms of that standard. There is no logic in the conclusion that real wages in the latter period are 100 per cent higher than in the first period. What is obviously needed is some standard that can be applied to the commodities upon which the surplus is spent. But these commodities vary with the amount of the surplus and hence there is no common denominator. Furthermore the commodities appearing in the surplus are particularly subject to qualitative changes which cannot be reduced to quantitative terms. Much light can be thrown, however, on the movement of real wages by showing what per cent of the total budget is required, from period to period, to maintain the minimum

health standard. A less exacting measure would be to take, following Engel's suggestion, the per cent of the total budget spent in food.

Money wages converted into a minimum health budget would not give, however, *actual* real wages, but only real wages that *might* be realized with perfect skill and knowledge in selecting and purchasing goods. The same criticism also applies to the fixed budget method discussed above. "It must be remembered," says Rowntree, "that at present the poor do not possess knowledge which would enable them to select a diet that is at once as nutritious and as economical as that which is here adopted as the standard. Moreover the adoption of such a diet would require considerable changes in established customs, and many prejudices would have to be uprooted." Henry Higgs in his presidential address before the Royal Economic Society in 1899 said that as economists we must not "stop at the fact that so many shillings a week *might* procure such and such necessities, comforts, or luxuries, but to ascertain how they *are* expended. From the first we might deduce what the economic condition of the people might be; from the second, we shall know what it is."

This brings us to the method of Le Play, whom Higgs calls the father of the scientific family budget. "Nothing of economic interest is too unimportant for him to record. A minute inventory and valuation of clothes, furniture, and household goods; a detailed account, item by item, of income from all sources, and of expenditure upon all objects for a year, with the qualities and prices of foods, etc.; a description of the family, member by member, their past history, their environment, how they came to be where they are, and to earn their living as they do; their resources in the present, their provision for the future; their meals, hygiene, and recreations; their social, moral, and religious observances—nothing escapes him. And the whole is organized, classified, fitted into a framework identical for all cases, with the painstaking and methodical industry of the naturalist."

This may be called the inventory method. It does not rely upon money wages converted into real wages via the prices of a theoretical budget of goods and services. It photographs the actual consumptive standards of the families of the wage-earning classes. It is not satisfied with an estimate of what the real wages might be if spent so and so, but what the real wages are in view of the way the money income is actually spent. It is useless to say that it is no concern of ours that the money wages are often foolishly and wastefully spent, that the wage-earners are inefficient consumers. Everyone will admit that it would be an error to estimate what real wages might be if all workmen were a hundred per cent efficient in production. Certainly real

wages would probably be increased if the wage-earners became more efficient as producers, but similarly real wages would also be higher if the working class became more efficient consumers. "Given a half dozen Le Plays," says Henry Higgs, "applying their minds to the study of the consumption of wealth among the working classes of England, we might expect soon to see a greater advance in comfort, a greater rise in the standard of life, than improved arts of production alone are likely to yield in a generation." Surely a country with high money wages, but incapable of converting these wages into satisfying goods has lower real wages than a country with low money wages but with high efficiency in consumption. Wise spending is as important as high earnings.

Le Play's inventory studies suggest, as a measure of real wages, an index of the actual consumption of the wage-earning class. A consumption index serving as a measure of real wages might be constructed in two ways. First, a national index of consumption might be made showing the changes from time to time in the consumption of leading commodities, particularly such commodities as are consumed by the masses. This was one of the methods used by Giffen and later by George H. Wood. Wood's consumption index consisted of fourteen foods. An index such as Wood's has great merit for a period in which the wage-earning class is climbing out of a poverty level into a subsistence or subsistence-plus level. In a transition period such as this, an increased consumption of the better grades of food makes itself evident and may serve as a good index of real wages. But with a high level of real wages such as exists at the present time in the United States it is very doubtful that such an index could be relied upon. We know from Engel that beyond a certain income level expenditures for food become relatively less important. It would be very difficult to find a list of commodities for which the data on national consumption are available that would constitute a reliable index of the trend of real wages.

An index of consumption which is to be thoroughly reliable, at least for the higher comfort levels, must be all inclusive. This brings us to the second method of constructing a consumption index. An estimate is made by direct investigation of the quantities of the various commodities consumed by working class families from time to time. In constructing a general index these quantities may be weighted according to the actual prices of the various commodities in the base year, or perhaps crossing the weights of the base and given years may be preferred. The fixed budget method estimates the variations in the prices of the goods included in the budget and weights these prices

according to certain quantities fixed in the standard budget. The consumption index on the other hand estimates the changes in the quantities consumed and weights these according to the prices prevailing in the base year.

The consumption index has the great advantage over the other methods suggested; viz., that it enables us to take direct cognizance of quantitative changes in the standard. Suppose new commodities are introduced. For the link year in which the change is made, consumption would be estimated from both the old and the new list of commodities. Thus the change in the standard of consumption would not be indicated in the index for the link year, but subsequent years would register the growth in the consumption of the new commodity among the wage-earning classes. Moreover, an increase in the consumption of high quality goods balanced by a corresponding quantity decrease in low quality goods (silk and cotton hose for example) would reflect an increase in the consumption index since the prices of the two types of goods, which constitute probably the best attainable measure of relative quality, determine the weights used. However, changes in the quality of the individual commodities can not be measured quantitatively. These intangible factors must be weighed qualitatively, but a study of the actual consumption of the two periods makes this sort of an analysis possible, and in this respect also the consumption method has an advantage.

A consumption index, if it is to measure real wages, must be corrected for (1) savings and (2) income derived from sources other than wages. The first can be accomplished by including in the index of general consumption an index of savings converted to a commodity basis by dividing the money savings by a cost of living index. To be sure, all the objections that may be raised against the cost of living method would apply to this particular portion of the general index. The second correction can be accomplished by subtracting from the consumption index that per cent of the wage-earners' income derived from investments and other sources.

Would it not throw much added light on the course of real wages if the Bureau of Labor Statistics made an investigation each year of the consumption of five or ten thousand representative wage-earning families in various parts of the country? Care should be taken to insure that those selected properly represent the frequency distribution of the size of families. Moreover, to be representative of the wage-earning class, the relative importance given to the different crafts would have to be altered with each census, so that the consumption index may reveal the effect on real wages, not only of changes in wages,

prices, and commodities, but also of changes in the industrial composition of the wage-earning class. Such an index of consumption averaged by decades, in order to iron out the fluctuations of the business cycle, would be particularly useful as a check on indexes of real wages constructed in the usual manner from changes in the retail prices of wage-earners' budgets.

When the British Board of Trade made a study of the cost of living in Germany, France, Belgium, the United States, and the United Kingdom in 1909 to 1911, their main effort was to estimate the cost of the average British workingman's budget in the various countries; or in other words, to ascertain what it would cost a British family to live in the other countries as they were accustomed to live in Great Britain. Conversely they also estimated what it would cost foreign working class families to live in Great Britain as they were accustomed to at home. They also made an effort to supplement these comparisons with a study of consumption, particularly estimating the actual quantities of the various kinds of foods consumed in the different countries. The problem of converting money wages into real wages by using exclusively cost of living data presents peculiar difficulties when comparison is made between two or more countries with different standards of consumption and with wide differences in perquisites and supplementary benefits, in group and community activities—educational, artistic, recreational, etc., all of which have an important bearing on real wages. Community activities and standards are peculiarly difficult to measure, but to overlook them leads to wrong conclusions. The commonly accepted opinion with respect to the superiority of the so-called American standard of living is probably somewhat exaggerated largely because insufficient attention has been paid to what may be called "community consumption." A study confined entirely to wages and cost of living would give no adequate impression of the economic well-being of common labor in Germany, for example, and the United States, prior to the great war.

A comparison of the consumption of two countries could not be made exclusively in quantitative terms. Only those commodities which are common to both countries can be measured in the consumption index. Certain commodities consumed in one country are unknown in the other, but in many cases it may be possible to find substantial equivalents which will represent similar standards. At any rate a careful study of the consumption of the two countries would enable one to supplement the quantitative conclusions with a qualitative analysis.

We are here confining our attention solely to material well-being—to economic values. There would still remain the question of moral

values. How did the working classes in the various periods and countries actually live in the broader sense of that term? Who got the most out of life? A study of real wages can at best contribute only a part of the data necessary for a complete answer. Western civilization is inclined to measure the good life in terms of material things, and hence to emphasize the production of goods and services. Eastern civilizations on the other hand tend to measure values in terms of release from productive effort; to measure the worthwhileness of life in terms of the proportion of time devoted to pursuits other than the production of economic goods and services.¹

¹My colleague, Professor R. S. Vaile, makes the suggestion that according to the oriental philosophies the best measure of real wages, so to speak, would be leisure and not material goods and services. From this point of view real wages would be inversely proportional to the time required to produce a physical subsistence.

THE MOVEMENT OF REAL WAGES AND ITS ECONOMIC SIGNIFICANCE¹

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I. The Movement of the Cost of Living 1895-1924

The problem of determining the movement of real wages is, of course, that of ascertaining the relative movement of wages and earnings on the one hand, and of the cost of living on the other. An accurate index of the cost of living for workingmen is therefore basic to the problem.

Yet in trying to construct such an index of relative living costs during the last thirty-five years, we are handicapped by the fact that only since 1914 do we have first-hand material on the cost of all the major items for which workingmen's families spend their money. These indexes of the United States Bureau of Labor Statistics, of the National Industrial Conference Board, and of the Massachusetts Commission on the Necessaries of Life, can give us a quite accurate picture of the movement of living costs during the last decade. But, unfortunately, our materials for the twenty-five years from 1890 to 1914 are much more scanty. The only records of retail prices that we have for this quarter century are those for thirty food commodities from 1890 to 1907, and for the next seven years for only fifteen of these food commodities plus coal, gas, and some articles of house furnishing.

Previous studies of real wages² have frankly accepted this situation and have used the movement of food retail prices during this early period as the best index of living costs. Sometimes, as in the case of the studies by Rubinow and by Miss Lamberson and myself, the index of the fifteen food commodities for which we have a continuous record has been used, weighted according to the 1901 budgets of workingmen's families. By this method, we secure an index of 155 for 1914 in terms of the average for 1890 to 1899 serving as 100. Sometimes, as by Jones,³ the index of thirty food commodities has been projected according to the deviation in 1907 of the thirty commodities from the fifteen. With the average for 1890 to 1899 as 100, this method gives

¹I wish to acknowledge my indebtedness to the following persons for assistance in the preparation of the statistical material included in this paper: Messrs. H. N. Weber, who devised the formula for interpolation, E. I. Kunst, A. D. Battey, S. C. Ross, A. I. Danziger, and Lawrence Rollins.

²See I. M. Rubinow, "The Recent Trend of Real Wages," *AMERICAN ECONOMIC REVIEW*, Vol. IV, pp. 793-817; Douglas and Lamberson, "The Movement of Real Wages" (1890-1918) *Ibid.*, Vol. XI, pp. 409-426.

³F. W. Jones, "Real Wages in Recent Years," *Ibid.*, Vol. VII, 319-330.

an index for 1914 of 150. But even this method (although superior to that which I originally employed) clearly involves **two dangerous assumptions**: (1) that the disparity between the fifteen and the thirty food commodities was approximately the same throughout the years 1908 to 1914 as it had been in 1907; and (2) that food prices during this period were an accurate measure of the relative cost of living.

Some doubts as to the validity of the first assumption necessarily arise when the projected index of thirty commodities is seen to be nineteen points higher than that of the Bureau of Labor Statistics index of wholesale food prices. The difference upon examination cannot be explained by the natural deviation of wholesale from retail prices, for I have taken the prices of the thirteen identical commodities for which we have both wholesale and retail figures in 1914 and have weighted each by its relative importance in workingmen's budgets in 1901. It is thus found that there was a difference between the two in 1914 of only one point.

By comparing the wholesale indexes of different sets of commodities for the years 1907 to 1914, we can determine with approximate accuracy the degree to which the fifteen commodities represent the price movements of those food commodities which the workmen consumed. I have worked out four such indexes; the first (Index A) consists of thirteen commodities which are identical with those used in the fifteen commodity retail index save for the omission of pork chops and poultry, for which unfortunately we have no retail quotations; the second (Index B) consists of those commodities included in Index A plus the fifteen commodities for which retail quotations were secured up to 1907 but which were discontinued in that year; Index C is secured by adding the wholesale quotations of five more miscellaneous commodities; and Index D is in turn obtained by adding seven more commodities at wholesale. All of these commodities are weighted by their relative importance in workingmen's budgets during this period as shown by the 1901 study of the Bureau of Labor.¹

The effect of including more commodities is seen by the fact that in 1914, these indexes upon an 1890 to 1899 base were as follows:

Index A	150
Index B	142
Index C	141
Index D	140

Thus the more commodities that are added, the lower the relative index. The conclusion seems irrefutable that the thirteen commodities weighted heavily as they were with beef and pork, rose more rapidly during this period than did food commodities as a whole. Index D is

¹*Eighteenth Annual Report of the United States Commission of Labor, "Cost of Living and Retail Prices of Food,"* (1903) pp. 649-51.

certainly a more satisfactory index of wholesale food prices than is Index A; it is also more satisfactory for our purpose than is the index of wholesale prices compiled by the United States Bureau of Labor Statistics since it includes virtually all of the commodities which form the latter, while its weights are derived from workingmen's budgets. The weights of the latter on the other hand are based upon transitions in the country as a whole and hence include purchases by the middle and wealthy classes.

I have in turn revised Index D to include the probable change which the inclusion of poultry and pork chops would occasion.¹ This gives a series of indexes, for the years 1890 to 1914 which is, I believe, the best measurement of wholesale prices.

TABEL I.—THE MOST PROBABLE INDEX OF THE WHOLESALE PRICES OF FORTY-TWO FOOD COMMODITIES CONSUMED BY WORKINGMEN
(Average 1890-99 = 100)

Year	Index	Year	Index
1890	111	1903	105
1891	114	1904	107
1892	104	1905	106
1893	113	1906	111
1894	100	1907	116
1895	96	1908	119
1896	83	1909	122
1897	88	1910	128
1898	94	1911	128
1899	96	1912	138
1900	101	1913	134
1901	104	1914	142
1902	113		

But this after all is but an index of wholesale prices, whereas what we wish is, of course, an index of retail prices. This can, I think, be satisfactorily secured by assuming that the retail index of these commodities varied from their wholesale index in the same proportion that the retail index for these identical commodities for which we have record varied from their wholesale index. For the years 1890 to 1907, this would be the relative variation of the retail from the wholesale index for the twenty-seven commodities while during the next seven, it would be the variation existing in the case of the thirteen commodities. By the use of this method, we can secure a probable index of retail food costs which is more accurate than that of the projected

¹On the assumption that the relative change which these two commodities would effect in Index D, was equal to (1) the percentage change which their addition caused to the retail index of thirteen and twenty-seven commodities respectively multiplied by (2) the proportion which the total weights for the commodities included in the indexes of fifteen and twenty-seven commodities bore to the weights of the commodities included in Index D.

thirty-commodity index based as it is upon the actual movement of the fifteen commodities. This index which we have used not only includes more commodities but covers their actual movements (even though at wholesale) instead of relying upon the exaggerated increases of the fifteen commodity index, heavily weighted as that is with beef and pork. The index numbers of retail food prices which have been secured by this method are shown below.

TABLE 2.—THE MOST PROBABLE INDEX OF THE RELATIVE RETAIL PRICES OF FOOD FOR WORKINGMEN FOR THE YEARS 1890-1914
(Average 1890-99 = 100)

Year	Index	Year	Index	Year	Index
1890	105	1898	100	1907	121
1891	104	1899	100	1908	119
1892	101	1900	102	1909	119
1893	104	1901	107	1910	128
1894	98	1902	111	1911	135
1895	97	1903	109	1912	135
1896	94	1904	111	1913	137
1897	98	1905	110	1914	143
		1906	115		

It will be seen from this table that we secure an index of 143 for 1914 as compared with 155 as obtained by the straight fifteen commodity index and with 150 as obtained by projecting the thirty commodities.

But food formed only 43 per cent of the workingmen's budget during this period and we should try to get some approximation of the relative price movement of the other groups of commodities. Rent, it seems, is virtually impossible to measure, but we can get satisfactory figures on the movement at *wholesale* of the following groups of commodities which are ultimately consumed by the workers: (1) clothing; (2) fuel and light (from 1907 a retail index can be computed for this group); (3) furniture; and (4) tobacco and spirits. The most probable retail indexes for these groups may then be secured by assuming that from 1890 to 1907 the retail prices of these commodities varied from their wholesale prices as the retail prices of the twenty-seven food commodities varied from their wholesale prices, and that from 1907 on, the relative variation was that of the retail prices of food, combined with fuel and light from the wholesale prices for those two groups. It cannot, of course, be pretended that the resultant figures are exact but they are probably fairly close approximations and their inclusion in the final cost of living index will make it far more accurate than if they were to be omitted altogether. Table 3 gives the

most probable index of the retail prices of these groups as obtained by the method which has been described.

TABLE 3.—THE MOST PROBABLE INDEXES OF THE RELATIVE RETAIL PRICES
OF VARIOUS GROUPS OF COMMODITIES OTHER THAN FOOD CONSUMED
BY WORKING CLASS FAMILIES 1890-1914
(Average 1890-99 = 100)

Year	Clothing	Fuel and Light	Furniture	Spirits and Tobacco
1890	108	100	106	91
1891	99	94	101	89
1892	106	97	106	92
1893	97	92	96	88
1894	92	91	102	97
1895	94	102	96	103
1896	102	118	101	114
1897	100	104	96	111
1898	101	98	100	112
1899	103	112	99	112
1900	107	123	108	111
1901	102	122	109	116
1902	99	136	110	111
1903	110	166	119	117
1904	111	143	117	118
1905	113	136	113	119
1906	121	142	118	120
1907	131	147	129	121
1908	113	147	120	118
1909	114	146	115	115
1910	119	146	123	116
1911	122	146	138	123
1912	115	149	137	115
1913	123	152	158	119
1914	119	154	154	119

The indexes for each of these groups were then weighted by the relative amounts spent upon that group by workingmen's families in 1901. These were as follows:¹

Class of Expenditure	Percentage of Family Income Spent on
Food	43.1
Clothing	13.0
Fuel and light	5.7
Furniture and furnishings	3.4
Liquor and tobacco	3.0
Total,	68.2

¹*Eighteenth Annual Report of the United States Commissioner of Labor*, pp. 101; 579 ff.

By this method, the following index of the cost of living was secured for the years 1890 to 1914:

TABLE 4.—THE MOST PROBABLE INDEX OF THE RELATIVE TOTAL COST OF LIVING FOR WORKINGMEN'S FAMILIES 1890-1914
(Average 1890-99 = 100)

Year	Index of Cost of Living	Year	Index of Cost of Living	Year	Index of Cost of Living
1890	104	1898	100	1906	119
1891	101	1899	102	1907	126
1892	102	1900	106	1908	121
1893	100	1901	108	1909	121
1894	97	1902	111	1910	128
1895	97	1903	116	1911	132
1896	99	1904	115	1912	133
1897	100	1905	115	1913	137
				1914	139

While there are of course defects in such an index number as the above, based as it is upon such incomplete and inferential data, it seems to be the best that can be constructed, and it is probably a fairly close approximation to the actual movement of living costs. The necessary omission of rent, however, tends to make it a slight overstatement of the actual increase since rents in general tend to rise more slowly than other living costs.

Fortunately from 1914 on we can move on much surer ground. The well-known index numbers of the Bureau of Labor Statistics and the National Industrial Conference Board furnished a comparative abundance of material upon the movement not only of food prices but for those of clothing, furniture, fuel, and (what were most conspicuously missing in the earlier index) of incidentals and of housing as well. The discussion as to the relative merits of these two index numbers has been long continued. While each is well-constructed, that of the Bureau of Labor Statistics is preferable for our purposes in these two decisive respects: (1) the data are collected by field agents and not by questionnaire; and (2) the indexes for the main groups of expenditure are weighted by their relative importance in the workers war-time budgets rather than by the weights applicable before 1910 as is the case with the Conference Board's index. In certain other respects the Conference Board's index is superior but probably not enough to outweigh these two considerations.¹

¹For an analysis of the various indexes, see the bulletin of the *National Industrial Conference Board*, "The Cost of Living in the United States." For a criticism of the Conference Board's index see Elma B. Carr, "Cost of Living Statistics of the United States Bureau of Labor Statistics and the National Industrial Conference Board," *Journal American Statistical Association*, Vol. XIX, pp. 484-507.

The Bureau of Labor Statistics series is, to be sure, more reliable for the years since 1920, when its weighting system was revised, than for the preceding years, but it is, on the whole, our most reliable index. I have accordingly used it as the basis for computing living changes but have introduced a modification which has been recommended by Professor Barnett.¹ The present method of arriving at a countrywide index of the total cost of living is (1) to secure an index for each main group of expenditure, such as food, clothing, etc., by taking the simple average of the indexes in the various cities for each group; (2) to weight these group indexes by the relative amounts spent upon them by workmen's families in 1918 and 1919.

The method that I have used is based not upon indexes for the main groups of expenditure but upon that of the total cost of living in the various cities. The index for each city was weighted by its relative population and a resultant index for the country as a whole was thus secured.

Since the Bureau of Labor Statistics figures have only been compiled at intervals, it was necessary to interpolate the probable movement during the intervening months in order to find the average for each year as a whole. This was done by using for the years 1914 to 1919 the relative monthly movements of the cost of living index compiled by the Massachusetts Commission on the Necessaries of Life and for the years since 1919, that of the National Industrial Conference Board. The average being thus found for each month, a simple average was computed for the yearly index.

The index numbers for the various years since 1914 which were obtained by this method are as follows:

Year	Index (1914=100)	Year	Index (1914=100)
1915	98	1920	205
1916	107	1921	176
1917	129	1922	166
1918	157	1923	169
1919	179	1924	169

¹George E. Barnett, "Index Numbers of the Total Cost of Living," *Quarterly Journal of Economics*, Vol. XXXV, pp. 261-2.

When these are transposed to the 1890 to 1899 base, we have the following relatives:

TABLE 5.—RELATIVE COST OF LIVING IN THE UNITED STATES 1914-24

Year	Index (1890-99=100)	Year	Index (1890-99=100)
1915	136	1920	285
1916	149	1921	244
1917	179	1922	230
1918	218	1923	234
1919	249	1924	234

II. The Movement of Money Earnings 1890-1924

There are at least three main ways in which we may measure money wages; namely, by studying (1) wage rates, (2) average earnings of employed wage-earners, and (3) average earnings of the wage-earning class, including both those employed and those unemployed.

By *wage rates* is meant the agreed amount which is to be paid for an hour's work or for that of the standard working week.¹ The rate for the week is of course merely that for the hour multiplied by the number of hours that is agreed upon as constituting the normal week's work.

By the *average earnings of employed workers* is meant the average amount in money actually received by the workers. It is obtained by dividing the total paid out in wages during a given work period by the average number employed. It thus takes into account changes in earnings produced by short-time, absenteeism, overtime, fines, and bonuses. Since it is, however, based upon the earnings of those who are employed, it does not include those who are unemployed and who consequently are not on the pay-roll of any establishment.

The *average earnings of the working-class* do include unemployment. Since it is virtually impossible to collect such data directly from a sufficient number of workers, the best method of approximating this is to compute an index of unemployment and then to modify the index of average earnings of employed workers accordingly. This has been done by Professor A. L. Bowley and Mr. George H. Wood for English wage statistics but as far as I know has not been successfully attempted in this country.²

Because of the necessities of space I shall confine myself for the purpose of this paper to a consideration of the movement of the second

¹The previous studies of real earnings which I have made have primarily concerned themselves with wage rates.

²Dr. Brissenden in his forthcoming study for the Census Bureau will however publish such an index and I hope to do likewise in my final study.

of these methods; namely, average actual earnings, and the relation of these to the relative movement of the cost of living during the years 1890 to 1914.

The periodical censuses of manufacture enable us to compute the average yearly earnings in that line of industry for the years 1889, 1899, 1904, 1909, 1914, 1919, 1921, and 1923. We may find the most probable earnings during the intervening years by the process of interpolation. For this purpose, a weighted average of the earnings shown by the various state reports on manufacturing has been used for the years 1890 to 1915. The statistics from Massachusetts, Connecticut, New Jersey, Pennsylvania, Ohio, Iowa, Wisconsin, and South Carolina were those used,¹ and the fundamental principle followed was to assume that the census earnings would follow the same relative movements as those of the states and that any differences between the movement of the two over a census period as a whole would be distributed evenly throughout the years of the period.

For the period since 1915, a substantially similar method has been used save for the fact that the statistics employed for interpolation were those collected from the country as a whole for thirteen industries by the Bureau of Labor Statistics and for twenty other industries by the New York State Department of Labor. When in 1922 the Bureau of Labor Statistics enlarged the scope of its studies, these were substituted for the New York figures for the same industries. A weighted average of earnings in these industries as a whole was then computed and the results were then used to interpolate the probable average earnings both by months and years since 1915. The probable earnings for 1924 have been found by extrapolating these averages from the 1923 average earnings as shown by the *Census of Manufacturing* for that year.

By similar methods, the probable average earnings by years from 1889 and by months since 1915 have been found for some thirty individual manufacturing industries, but because of limitations of space only the yearly figures for the main industrial groups into which they have been classified will be given.

The average yearly earnings since 1890 of wage-workers on the railroads of the country have also been computed from the annual reports of the Interstate Commerce Commission on *Statistics of Railways* which extend back to 1895. Data on the previous years have been obtained from the reports of the state railroad commissions of Massachusetts, New York, Iowa, Kansas, Minnesota, and Pennsylvania and from those of the New York Central Railroad. Fortunately

¹The material for some of the states did not extend throughout the entire period. Data from the same set of states were however used in each census period.

these state reports included not merely wage statistics for those employed within the specific states but also for all employed on the railway systems running through the states. Because of this it is possible for the years 1889 to 1895 to secure data on about 40 per cent of the railway workers and hence to carry back by extra-polation to 1890 the earnings on the railways.

The railway workers have been divided into three classes and the average earnings of each measured separately: (1) wage-earners; (2) clerks and professional workers; and (3) officials. Only the first group was used for the railroads as such; the clerks (as we shall see later) were combined with clerical and lower-salaried workers in the factories while the officials were omitted from later consideration.

Average earnings on the street railways have been found through using the periodical reports of the Census Bureau and through interpolating during the intervening years by the earnings in those states whose public service commissions have collected wage material.¹

The probable earnings of clerical and the lower-salaried workers in manufacturing² were ascertained by securing the average for the census years and then interpolating for the intercensal years by the average earnings of the clerical employees who were employed on the railroads.³ The method of interpolation is probably approximately correct although in later years, the wages of the clerical workers on the railways have been somewhat less fluid than those in manufacturing. The fact that the two have moved together in much the same degree over long periods of time tends, however, to confirm the substantial accuracy of the method employed. For teachers, the *Annual Reports of the Commissioner of Education* give full data from which the average yearly earnings may be computed while for 1923 and 1924, the very comprehensive studies of salaries which have been made by the National Education Association are valuable supplements.

The records of the Methodist and Congregational Churches make it possible to construct an index of the annual earnings of ministers, while the *Official Register* of federal employees in Washington enables one to compute the probable annual earnings of these workers up to 1920. The average salaries of postal clerks and letter carriers can moreover be ascertained from the *Annual Reports of the Postmaster General*.

¹Notably New York, Massachusetts, Connecticut, Ohio, Illinois, and Wisconsin.

²This group includes the lower grades of supervisory officials which brings the average annual earnings up to an appreciably higher point than would be true of clerical workers alone.

³The statistics of earnings for clerical employees in 1889 give a somewhat inflated figure since the Census of Manufactures included in that year the salaries of proprietors and firm members in this group. The earnings of the clerical force itself therefore increased by a somewhat greater figure during this decade than is shown by our series.

It is hoped that the probable average earnings in both bituminous and anthracite coal mines may be computed in the near future. At the present time however no very satisfactory index for these industries has been found. The three other chief groups for which it seems impossible to derive any accurate index of annual earnings are those of (1) farm labor, (2) workers in the building trades, and (3) employees in retail and wholesale trade. The first two groups are, however, included in the study of wage rates which will later appear.

We may now turn from an examination of the sources that are available and the methods used to a consideration of the results concerning annual earnings that have thus far been obtained. Table 6 gives the probable average money earnings of employed workers in each of the main occupational groups that have been studied while Table 7 gives similar data for the main groups into which manufacturing is divided. The average earnings in all of the occupational groups as a whole, which are shown in the last column of Table 6, were obtained by weighting the average earnings for each main group by the relative number employed in that group during each of the given years. These weights were computed upon the assumption that there was an even numerical growth or change during the intercensal periods. The relative weights which were used in the various census years were as follows:

RELATIVE WEIGHTS ASSIGNED TO VARIOUS LINES OF EMPLOYMENT

Year	Manu- facturing	Transpor- tation (steam and street railways)	Clerical Employees	Teachers	Ministers	Gov't. Em- ployees	Postal Em- ployees	Total
1890	149	31	20	14	4	1	1	220
1899	189	39	16	17	4	1	1	267
1904	219	55	23	18	4	1	2	322
1909	265	65	34	20	4	1	2	391
1914	281	75	42	23	4	2	3	430
1919	364	77	68	27	4	4	3	547
1921	278	67	69	27	4	3	4	452
1923	350	74	62	28	4	.	4	522

These have been reduced to two sets of relatives which use the averages for the ten years 1890 to 1899 and that for 1914 as the respective bases. Table 8 shows the relative movement of money wages in terms of the average earnings of the nineties serving as 100 for employment as a whole. Table 8A in the Appendix presents the same material but with the average for 1914 treated as 100.

The relative movement in the various groups presents interesting contrasts. Thus in 1914 the average money earnings of the wage-earners in manufacturing were 38 per cent above their 1890 to 1899 level while in transportation the increase was 43 per cent. The earn-

TABLE 6.—PROBABLE AVERAGE ANNUAL MONEY EARNINGS OF EMPLOYED WORKERS IN AMERICAN INDUSTRY

Year	Wage Earners	Wage Earners	Clerical and Low- Salaried Workers	Min- isters	Teach- ers	Gov't Em- ployees	Postal Em- ployees	All Groups
	Manu- facturing	Trans- portation	Trans. and Mfg.					
1890	\$439	\$560	\$880	\$794	\$243	....	\$841	\$488
1891	442	552	888	786	251	....	851	487
1892	446	560	906	793	256	\$1096	843	493
1893	420	560	939	809	263	1101	849	476
1894	386	543	955	824	269	1110	864	449
1895	416	542	980	787	275	1104	877	472
1896	406	543	998	764	279	1084	882	464
1897	408	544	1015	750	284	1057	876	465
1898	412	544	1026	739	291	1025	869	468
1899	426	549	1026	722	302	1017	869	478
1900	435	554	1029	731	313	1033	876	489
1901	456	555	1036	730	321	1047	880	506
1902	473	563	1050	737	329	1061	878	524
1903	486	592	1062	761	340	1067	875	542
1904	477	601	1074	759	357	1066	876	540
1905	494	596	1112	759	372	1072	886	557
1906	506	613	1129	773	388	1084	886	571
1907	522	661	1150	831	409	1094	907	595
1908	475	665	1159	833	432	1102	954	569
1909	518	648	1151	831	451	1106	990	598
1910	558	678	1189	802	463	1108	1027	635
1911	537	702	1229	856	479	1116	1052	631
1912	550	714	1247	879	502	1128	1060	647
1913	578	752	1278	899	518	1136	1080	726
1914	580	787	1289	938	534	1140	1113	691
1915	568	806	1291	984	553	1152	1126	691
1916	651	858	1360	1017	580	1174	1128	767
1917	774	972	1425	1069	605	1263	1149	879
1918	980	1379	1746	1186	675	1385	1252	1123
1919	1158	1492	1905	1238	799	1520	1466	1285
1920	1358	1785	2159	1428	938	1648	1614	1503
1921	1180	1619	2128	1556	1104	....	1671	1371
1922	1149	1567	2093	1622	1208	....	1723	1340
1923	1254	1575	2104	1620	1260	....	1744	1407
1924	1256	1572	2141	1678	1295	....	....	1415

ings of the clerical workers had increased by 34 per cent, those of the ministers by 21 per cent, postal employees by 29 per cent, and government employees (in Washington) by only 6 per cent. Teachers, whose average annual earnings in the nineties had been only \$271, showed the

largest increase of all, namely 97 per cent. The average increase for all of the employed workers as a whole was 46 per cent.

While in 1915 there was a 3-point recession in the earnings of the wage-earners in manufacturing, earnings in other lines rose suffi-

TABLE 7.—AVERAGE ANNUAL MONEY EARNINGS OF EMPLOYED WORKERS
IN MAIN GROUPS OF MANUFACTURING INDUSTRIES

Year	Food	Iron and Steel	Tex- tiles	Cloth- ing	Lum- ber and its prod- ucts	Leath- er and Leath- er Goods	Paper and Print- ing	Tobac- co prod- ucts	Land Vehi- cles.	All Mfg.
1889	\$380	\$543	\$318	\$355	\$325	\$468	\$459	\$419	\$536	\$434
1890		556	320	362	325	481	476	437	544	439
1891		567	326	365	338	480	467	411	537	442
1892		559	326	369	339	486	470	414	536	446
1893		532	331	382	322	459	477	430	515	420
1894		481	287	376	299	448	454	421	467	386
1895		519	311	388	310	435	455	430	504	416
1896		491	306	362	327	428	441	467	463	406
1897		493	306	366	342	422	439	401	481	408
1898		515	294	373	362	415	421	396	509	412
1899	405	529	307	372	377	417	437	395	521	426
1900		538	324	386	402	413	438	403	533	435
1901		553	325	391	413	435	460	395	538	456
1902		575	340	418	439	441	471	416	600	473
1903		588	344	428	445	463	498	414	586	486
1904	453	566	328	418	463	468	499	413	577	477
1905		588	336	435	438	480	502	403	577	494
1906		617	360	454	479	491	510	403	617	506
1907		636	386	460	477	508	505	434	639	522
1908		569	372	450	466	504	524	440	590	475
1909	508	629	372	469	466	507	530	432	625	518
1910	514	651	371	487	411	524	541	437	690	558
1911	517	652	375	524	430	534	552	441	700	537
1912	532	665	397	510	466	535	594	446	709	550
1913	546	700	416	533	527	562	614	453	746	578
1914	547	711	412	505	532	561	609	447	716	580
1915	546	684	418	537	529	558	626	445	761	568
1916	608	820	480	603	589	618	654	479	847	651
1917	696	1012	573	682	675	693	720	540	985	774
1918	883	1324	731	834	855	847	914	621	1279	980
1919	1048	1487	845	1091	1024	1046	1106	802	1418	1158
1920	1204	1725	1033	1307	1180	1206	1373	937	1660	1358
1921	1151	1331	870	1179	973	1134	1278	811	1553	1180
1922	1101	1290	843	1122	972	1088	1278	798	1465	1149
1923	1194	1533	929	1180	1061	1129	1326	823	1578	1254
1924	1241	1525	881	1091	1076	1102	1340	840	1498	1256

ciently to maintain the average for all workers at the same point as during the previous year. The real upward movement of money earnings began, however, in 1916. Earnings in manufacturing rose by 20 points and in railroads by 10 points while the clerical workers showed a 7-point advance. The average for all of the workers came to 162. The gains proceeded at a somewhat faster rate during

1917. Those in manufacturing secured an increase of 29 points and the transportation workers one of 22 points. The increases in the other lines were very much less but the general index rose to 185.

Money earnings during the next three years continued to increase

TABLE 8.—RELATIVE ANNUAL EARNINGS OF EMPLOYED WORKERS IN AMERICAN INDUSTRY (Average 1890-99 in each group = 100)

Year	Wage Earners	Wage Earners	Clerical and Lower-Salaried Workers	Ministers	Teachers	Gov't Employees	Postal Employees	All Groups
	Manufacturing	Transportation	Trans. & Mfg.					
1890	105	102	92	102	90	...	98	103
1891	105	100	92	101	93	...	99	103
1892	106	102	94	102	95	102	98	104
1893	100	102	98	104	97	103	98	100
1894	92	99	99	106	99	103	100	95
1895	99	99	102	101	102	103	102	100
1896	97	99	104	98	103	101	102	98
1897	97	99	106	97	105	98	102	98
1898	98	99	107	95	107	95	101	99
1899	101	100	107	93	111	95	101	101
1900	104	101	107	94	116	96	102	103
1901	109	101	108	94	118	98	102	107
1902	113	102	109	95	121	99	102	111
1903	116	108	111	98	126	99	101	114
1904	114	109	112	98	132	99	102	114
1905	118	108	116	98	137	100	103	118
1906	121	112	117	100	143	101	103	121
1907	124	120	120	107	151	102	105	126
1908	113	121	121	107	159	103	111	120
1909	123	118	120	107	166	103	115	126
1910	133	123	124	103	171	103	119	134
1911	128	128	128	110	177	104	122	133
1912	131	130	130	113	185	105	123	137
1913	138	137	133	116	191	106	125	153
1914	138	143	134	121	197	106	129	146
1915	135	147	134	127	204	107	131	146
1916	155	156	142	131	214	109	131	162
1917	184	177	148	138	223	118	133	185
1918	233	251	182	153	249	129	145	237
1919	276	271	198	159	295	142	170	271
1920	323	325	225	184	346	153	187	317
1921	281	294	221	200	407	...	194	289
1922	274	285	218	209	446	...	200	283
1923	299	286	219	209	465	...	202	297
1924	299	286	223	216	478	...	...	219

rapidly. The relatives reached in manufacturing were 233 in 1918, 276 in 1919, and 323 in 1920. Earnings in transportation rose somewhat more irregularly but by 1920 had reached 325, or approximately the same relative increase as that which the wage-earners in manufacturing had enjoyed.

The increases in the other lines were much less. The relative for the clerical workers was only 225. This was virtually 100 points less than the indexes for manufacturing and for transportation whereas the differences in 1914 were only those of 4 and 9 points respectively. The increases for government employees in Washington and for postal employees were even less on the 1890 to 1899 base, being but 153 and 187, respectively. These brought the index for all groups down to 317.

In 1921 the break in money earnings amounted on the average in manufacturing to 42 points or 13 per cent, while in the transportation industry the decrease was 31 points or approximately 10 per cent. The earnings of the other groups, however, showed far greater stability. The relative for the clerical and low-salaried workers declined by but 4 points or 2 per cent. The money earnings of ministers, teachers, and postal employees even increased. Ministers' salaries rose by 16 points and 9 per cent, while the increase for teachers was one of 61 points and 17 per cent. The gain for the postal employees amounted to 7 points and 4 per cent. The average for all of the workers was 289. This was a fall of 28 points or 9 per cent.

A somewhat similar, though less pronounced, wage movement followed in 1922. Earnings in manufacturing sagged 8 points or 3 per cent more while the relative drop in the transportation industry was virtually the same. Clerical earnings fell 3 points or slightly over 1 per cent. The increase in the other lines, however, continued. A 9-point rise for ministers and a 6-point advance for the postal employees occurred while the teachers advanced their salaries by no less than 39 points or by virtually 10 per cent. Earnings as a whole, however, fell by 6 points or slightly over 2 per cent.

1923 witnessed a distinct advance of 25 points for the workers in manufacturing which brought the relative index up to 299. Earnings in transportation and in clerical work, however, increased by but 1 point. The salaries of teachers continued to rise. The advance for this group amounted to 19 points or slightly over 4 per cent. The index for all the groups combined rose from 283 to 297 or a rise of 5 per cent.

During 1924 the yearly earnings of those workers in manufacturing and transportation who continued to be employed remained virtually identical with those which they had received during the previous year. Elsewhere, however, there were slight increases which brought up the general index a further 2 points to 299. This was identical with the relative index for manufacturing and but 13 points, or slightly over 4 per cent, higher than that for transportation. The index for clerical workers, however, was a full 76 points, or 26 per cent, below the

general index while the relative for industries was less than this average by 83 points, or 28 per cent. Table 9 shows the relative movement of money earnings in the nine most important manufacturing groups. It is apparent that the increase has been greatest throughout in lumber and its products and in the food industries and least in the to-

TABLE 9.—RELATIVE ANNUAL EARNINGS OF EMPLOYED WORKERS IN MAIN GROUPS OF MANUFACTURING INDUSTRIES. (Average 1890-99 for each group = 100)

Year	Food*	Iron and Steel	Textiles	Clothing	Lumber and Its Products	Leather and Leather Goods	Paper and Printing	Tobacco Products	Land Vehicles	All Mfg.
1889	97	104	102	95	97	105	101	101	106	103
1890		106	103	97	97	108	105	106	107	105
1891		108	105	98	101	107	103	99	106	105
1892		107	105	99	102	109	104	100	106	106
1893		102	106	103	96	103	105	104	101	100
1894		92	92	101	90	100	100	102	92	92
1895		99	100	104	93	97	100	104	99	99
1896		94	98	97	98	96	97	98	91	97
1897		94	98	98	102	94	97	97	95	97
1898		98	95	100	108	93	93	96	100	98
1899	103	101	99	100	113	93	96	95	103	101
1900		103	104	104	120	82	97	97	105	104
1901		106	105	105	124	97	101	95	106	109
1902		110	109	112	131	99	104	101	118	113
1903		112	111	115	133	104	110	100	115	116
1904	115	108	106	112	139	105	110	100	114	114
1905		112	108	117	131	107	111	97	114	118
1906		118	116	122	143	110	112	97	122	121
1907		121	124	124	143	114	111	105	126	124
1908		109	120	121	140	113	115	106	116	113
1909	129	120	120	126	140	113	117	104	123	123
1910	131	124	119	131	123	117	119	106	136	133
1911	132	124	121	141	129	120	122	107	138	128
1912	135	127	128	137	140	120	131	108	140	131
1913	139	134	134	143	158	126	135	109	147	138
1914	139	136	133	136	159	126	134	108	141	138
1915	139	131	134	144	158	125	138	108	150	135
1916	155	157	154	162	176	138	144	116	167	155
1917	177	193	184	183	202	155	159	130	194	184
1918	225	253	235	224	256	190	201	150	252	233
1919	267	284	272	293	307	234	244	194	279	276
1920	306	329	332	351	353	270	302	226	327	323
1921	293	254	380	317	291	254	282	196	306	281
1922	280	246	271	302	291	243	282	193	288	274
1923	304	293	299	317	318	253	292	199	311	299
1924	316	291	283	293	322	247	295	203	295	299

*For food, average of earnings in 1889 and 1899 = 100.

bacco industries. The relative gains made in the groups of iron and steel, clothing, paper and printing, and land vehicles were on the whole closely similar to each and to the general average for all manufactures. The index for food products increased slightly more rapidly than the general average while the relatives for textiles and for leather and leather goods rose somewhat less than the general index.

III. The Movement of Real Earnings

Our primary interest is, however, in the relative purchasing power of the workers. This is, of course, obtained by dividing the various indexes of money earnings by the index of the cost of living. This gives us the results shown in Table 10 for the major groups of workers

TABLE 10.—RELATIVE AVERAGE ANNUAL REAL EARNINGS OF EMPLOYED WORKERS IN AMERICAN INDUSTRY. (Average 1890-99 in each group = 100)

Year	Wage Earners	Wage Earners	Clerical and Lower-Salaried Workers	Ministers	Teachers	Gov't Employees	Postal Employees	All Groups
	Manufacturing	Transportation	Trans. & Mfg.					
1890	101	98	88	99	87	..	95	100
1891	104	99	91	100	92	..	98	102
1892	105	100	93	101	93	100	96	102
1893	100	102	98	104	97	103	98	100
1894	95	102	103	109	103	107	103	98
1895	102	101	105	104	105	106	105	103
1896	97	99	105	99	104	102	103	99
1897	97	99	106	97	105	99	102	98
1898	98	99	106	95	107	95	100	98
1899	99	98	105	91	109	93	99	99
1900	98	95	101	89	109	91	96	98
1901	101	94	100	87	110	91	95	99
1902	102	92	99	86	110	89	92	100
1903	100	93	95	84	108	86	87	99
1904	99	95	97	85	114	86	88	99
1905	103	95	101	85	120	87	90	102
1906	101	94	99	84	120	85	86	101
1907	99	96	95	85	120	81	84	100
1908	94	100	100	89	132	85	92	99
1909	102	97	99	88	137	85	95	104
1910	104	96	96	80	133	80	93	104
1911	97	96	97	83	134	79	92	101
1912	99	98	98	85	139	79	92	103
1913	100	100	97	84	139	77	91	112
1914	99	103	97	87	142	76	93	105
1915	99	107	99	93	150	79	96	107
1916	104	105	95	88	144	74	88	109
1917	103	99	83	77	125	66	75	104
1918	107	115	83	70	114	59	67	109
1919	111	109	80	64	118	57	68	109
1920	114	114	79	65	122	54	66	111
1921	115	121	91	82	167	..	79	119
1922	119	124	95	91	194	..	87	123
1923	128	122	94	89	199	..	86	127
1924	128	122	95	92	204	..	..	128

covered. The average relative purchasing power of a year's work during the decade 1890 to 1899 is used as the base. In Table 10A in the Appendix the average for the year 1914 is the base used.

We see that prior to 1914, the cost of living had increased on the

whole faster than the money earnings of the workers in any of the main groups save teaching. While in 1914 the relative index of real earnings in this group was 142, it was but 99 in manufacturing, 97 for clerical workers, 87 for ministers, and 76 and 93 respectively, for government employees and postal clerks. The real earnings of the transportation workers for the first time in fifteen years ran above 100, although the increase shown was only one of 3 per cent. The rise amongst the teachers, however, was sufficient to bring the general index up to 105. In 1915 the relative purchasing power of the employed workers increased in all the lines save those of manufacturing, where the index remained constant. As the result, however, of the 4 per cent advance in the earnings of the transportation industry and 2, 3, and 5 per cent increase for clerical workers, postal employees, and teachers respectively, the general index of the workers' purchasing power advanced to 107 or 8 per cent above the relative index for manufacturing.

During 1916 and 1917, real earnings in manufacturing first increased 5 per cent to 104 and then in 1917 receded by 1 per cent to 103. The wage earners in the other groups, however, lost fairly steadily. The earnings of the transportation workers, for example, fell from 107 to 99. The relative earnings of the clerical workers decreased by 16 per cent during these years while ministers and teachers and government employees each suffered relative losses of 17 per cent. The postal employees lost even more. The effect of these changes was to raise the general index to 109 in 1916 but in 1917 to cause a fall to 104.

In 1918 real earnings in manufacturing rose 4 points to 107. Because of the increases granted by the Lane Commission, the net earnings of the railway workers increased 16 per cent to 115. The real earnings of the clerical workers, however, remained constant at 83, while those in the professions and in government service continued to lose. The relative index for ministers was but 70, while those for government and postal employees were only 59 and 66 respectively. The gains in manufacturing and in transportation, however, were sufficient to raise the combined index to 109.

The gains in relative purchasing power in some lines of work during 1919 were offset by the losses in others, so that the general index remained constant at 109. The manufacturing workers gained 4 points, but those in transportation lost 7 and those in clerical occupations lost 3.

In 1920, the wage-earners in manufacturing secured a further increase in real earnings of 3 points, which raised their relative index to 114. The wage decision by the newly constituted Railway

Labor Board also raised earnings for the year as a whole by more than the increase in the cost of living and caused the index for the transportation industry to rise 5 points to 114. The clerical workers, however, continued to lose ground and their real earnings dropped 1 point to 79. The relative movement amongst the other occupations was irregular and the all-industry index rose to 111.

Since the decrease in the cost of living in 1921 was appreciably more rapid than the fall in the money earnings of those who were retained, the real annual earnings of the employed workers rose. The increase was only 1 point in the case of those employed in manufacturing, but there was an increase of 7 points for those in transportation and of 12 points for the clerical workers. Teachers and ministers actually increased their money earnings in the face of the price decline so that their real earnings increased greatly. Those of ministers increased from 65 to 82 while the index for teachers increased 45 points, or from 122 to 167. In consequence of this, the index for all occupations rose to 119.

The gains were continued in 1922. Real earnings in manufacturing went up 4 points more, and reached the relative index of 119. The transportation workers gained 3 points and the clerical workers 4. Ministers, teachers, and postal employees gained even more rapidly than this and the index for the combined groups rose from 119 to 123.

In 1923, the manufacturing workers obtained a further increase of eight points, which brought their index of real earnings to 127. There was comparatively little change in the other occupations, however, so that the index for all groups showed only a four-point gain.

In 1924, both money earnings and relative living costs remained constant and there was no change in the index of real earnings either for manufacturing alone or for all the groups as a whole. There were, however, slight shifts among some of the non-manufacturing groups. Thus the real earnings of the workers in transportation fell by 2 points but clerical workers gained 1 point while ministers and teachers improved their position by 3 and 5 points respectively.

Since manufacturing is by far the most important group, it is highly desirable to analyze the relative movement of real earnings in the principal industrial divisions. Table 11, therefore, gives the relative real earnings for the main divisions of manufactures and enables us to see what differences exist in the relative gains made by the workers in differing industries.

An examination of this table discloses the fact that in 1914 the real earnings of the wage-earners in over half of the industrial groups were below the 1890 to 1899 averages and that only lumber showed an appre-

ciable increase over the earlier average. The index for tobacco was no less than 22 per cent below the base and that for leather and leather goods was 10 per cent less than the average for the nineties.

TABLE 11.—RELATIVE ANNUAL REAL EARNINGS OF EMPLOYED WORKERS
IN MAIN GROUPS OF MANUFACTURING INDUSTRIES.
(Average 1890-99 for each group = 100)

Year	Food*	Iron and Steel	Textiles	Clothing	Lumber and Its Products	Leather and Leather Goods	Paper and Printing	Tobacco Products	Land Vehicles	All Mfg.
1889	96	101	99	93	95	102	98	98	102	100
1890		103	99	94	94	104	101	102	104	101
1891		107	104	97	100	106	102	98	105	104
1892		105	103	98	100	107	102	98	104	105
1893		102	106	103	96	103	105	104	101	100
1894		95	95	104	92	103	103	105	95	95
1895		102	103	107	96	100	103	107	102	102
1896		94	99	98	99	96	98	99	92	97
1897		94	99	99	103	95	97	97	95	97
1898		98	94	100	108	93	92	95	100	98
1899	104	99	97	98	111	91	94	93	101	99
1900		97	99	98	114	87	91	92	99	98
1901		98	97	98	115	90	94	89	98	101
1902		99	99	101	119	89	94	91	107	102
1903		97	95	99	115	89	95	86	100	100
1904	103	94	92	98	120	91	96	87	99	99
1905		98	94	102	114	94	96	85	99	103
1906		99	97	102	120	92	94	82	102	101
1907		97	99	98	114	90	89	83	100	99
1908		90	99	100	116	93	96	88	96	94
1909	109	99	99	104	115	94	96	86	101	102
1910	105	97	93	102	96	91	93	82	106	104
1911	102	94	91	107	97	90	92	81	104	97
1912	105	95	96	103	105	90	98	81	105	99
1913	104	97	98	104	115	92	99	80	107	100
1914	103	98	95	98	115	90	97	78	101	99
1915	105	96	99	106	116	92	101	79	110	99
1916	107	105	104	109	119	93	97	78	112	104
1917	102	108	103	103	113	87	89	73	109	103
1918	106	116	108	103	117	87	92	69	115	107
1919	110	114	109	118	123	94	98	78	112	111
1920	111	116	117	123	124	95	106	80	115	114
1921	123	104	115	130	119	104	115	80	125	115
1922	125	107	118	131	127	106	122	84	125	119
1923	133	125	128	136	136	108	125	85	133	128
1924	138	124	121	125	138	105	126	87	126	128

*For food, average of earnings in 1889 and 1899 = 100.

The increases of 1916 and the succeeding years were sufficient to raise the indexes for iron and steel, for clothing,¹ and for textiles above 100 although the workers in paper and printing and in leather and leather goods still remained below the base until 1920 and 1921. From 1920 on, the real earnings of all the groups increased until in 1924 only the

¹For some years prior to 1914 the index for clothing had been above 100.

workers in the tobacco industry, with an index of 87, had fallen below the average for the years 1890 to 1899. The wage-earners in the division of lumber and its products showed a gain of 38 per cent over the nineties while those in the food trades had secured an equal relative increase over the average for the two years of 1889 and 1899. The relative increase in real earnings for those in the paper and printing industry were 28 per cent above the base. Those in the manufacture of vehicles for land transportation enjoyed a similar increase. The relative increases for the wage-earners in the clothing, iron and steel, and textile industries were quite closely bunched and amounted to 25, 24, and 21 per cent respectively. Those in leather goods however had secured only a gain of 5 per cent.

We can perhaps best summarize our results as follows:

1. In 1924, employed wage-earners in manufacturing could have purchased on the average 28 per cent more of goods and services than during the nineties. Transportation workers could have purchased 22 per cent more. The average gain for all the workers studied was 27 per cent.

2. Virtually all of these gains have been secured since 1914. In that year, aside from teachers, there was little or no increase in the relative purchasing power of the workers over that which they had enjoyed in the eighteen nineties.

3. The major portion of the gains have been made since 1919 and continued unabated during the years 1920 to 1923, during two of which business conditions were bad with an attendant decrease in total production and an increase in unemployment. Thus the index of real earnings for all industries increased from 109 in 1919 to 127 in 1923 or a gain of 18 points. The gains from 1920 to 1923 accounted for 16 of these 18 points.

4. Aside from the drop in 1917, real earnings in manufacturing have been rising steadily since 1915 at an average rate of approximately 3 per cent a year.

5. Workers in transportation have on the whole secured somewhat smaller increases in their relative purchasing power during the last decade than have those in manufacturing. On an 1890 to 1899 base, their index of real earnings in 1924 was 6 points and on a 1914 base, 10 points below that of the wage-earners in manufacturing.

6. Clerical workers, according to our index, have not only lost ground relatively but probably absolutely as well. Their index of real earnings, although much higher than it was during the years 1917 to 1920, is 5 per cent below its 1890 to 1899 average and 1 per cent below the average for 1914. It should be remembered however that the average earnings which were given for the years 1890 to 1899 were

somewhat in excess of the real earnings during this period. The decrease since this decade has probably therefore been somewhat less than is shown above. This does not affect the movement since 1899 and it has been in this last quarter of a century that the decreases shown above have occurred. The ministerial class has also lost during this period and its present relative index is 8 per cent below that of the nineties.

7. Contrary to the general impression, school-teachers have apparently made great relative progress during the thirty-five years and now receive nearly 140 per cent more than in 1890 and slightly more than double the amount which their earnings commanded during the nineties as a whole.

In comparison with their 1914 average, the teachers did suffer net losses during the five years from 1916 to 1920 but during the last five years they have made such great gains that the present index is 44 per cent above the 1914 level.

IV. The Significance of Other Factors Affecting the Movement of Real Earnings

How much do these statistics of real earnings mean? It should be constantly remembered that in their present form, no allowance has been made for the relative amount of unemployment that has prevailed in the different years. Since however there was relatively little unemployment in 1923, a consideration of this factor would certainly not diminish the increase which has been shown for that year and might indeed increase it. But there was an appreciable increase in unemployment during 1924 as is indicated by the fact that the index of employment in manufacturing fell by no less than 10 per cent from its 1923 average. This will cause the index for 1924 of the real earnings of the working class as a whole to fall below that for 1923. The degree to which it will affect an index in terms of an 1890 to 1899 base is of course unknown at present.

There are, however, other factors which by themselves have tended to increase the relative economic welfare of the wage-earning classes to a greater extent than is indicated by the real earnings of employed workers. The most important of these are: (1) The decreasing size of workingmen's families. We have no accurate measure of the exact size of families but our census unit of a household, which includes all those who keep house together under one roof, has decreased from an average of 4.9 in 1890 to an average of 4.3 in 1920. Since the relative importance of hotels, boarding houses, and institutions has increased since 1890, the relative decline in the average size of the family since that year has undoubtedly been greater. The workman's wage has con-

sequently been shared with fewer persons and the per capita improvement in economic conditions has correspondingly increased.

(2) Along with this decline in the size of the family has also gone a decrease in the relative proportion of the members of the family who are economically dependent upon the head for support. Thus the percentage of women over ten years who are gainfully employed has risen from 17.4 in 1890 to 21.1 in 1920.¹ The percentage of males over ten years who are gainfully employed has, however, remained approximately constant.² The relative burden of the families has been still further lightened by the decreasing proportion which children form of the total population and by the attendant relative increase in those age groups which can be and are gainfully employed. The decrease in the relative importance in the population of the lower age groups is shown by the following table.³

Year	Percentage Total Population Under 10 years	Under 15 years
1890	24.3	35.5
1900	23.8	34.4
1910	22.2	32.1
1920	21.7	31.8

Thus the percentage which those under ten and fifteen years respectively form of the total population has decreased by a total of 2.6 and 3.7 per cent. This is equivalent to a decrease in their relative importance of 11 per cent.

The fact that children are relatively less numerous than formerly in comparison with adults and that on the whole more of the adults are gainfully employed means that a unit of goods and services will go farther than before. This would be true even though the nominal size of the family were to remain unaltered.

This, however, is mitigated in part by the fact that a larger percentage of those who are dependents are over the age of ten years and hence are of somewhat greater expense to their parents.

(3) The decrease in the length of the working day and the consequent additions to the leisure time of the workers have enabled them to do things around the house in their spare time for which the family would formerly have been compelled either to pay or to go without. From the study which I have made, the decrease in the standard working week during the last thirty-five years has been close

¹*Abstract of the Fourteenth Census, 1920, p. 481.*

²The percentage for 1890 was 79.3 per cent; for 1900, 80.0; for 1910, 81.3; but for 1920, only 78.2.

³*Abstract of the Fourteenth Census, 1921, p. 135.*

to 16 per cent. This has permitted the workers to do a great deal of repair work around their homes and has lessened the expense which would otherwise be attached to such articles of enjoyment as automobiles and radio sets.

(4) Finally, we should not ignore the increase in the free services provided for wage-earners and their families by governmental units and by private philanthropic agencies. In 1903, the cities of over 30,000 population in the United States expended for the purposes of education and social welfare but \$8.11 per capita. In 1915, the average expenditure per person for these purposes was \$11.68 while in 1923, the average was \$22.76.¹ In 1915, the states expended, on the average, \$1.74 for these objects but by 1923 this had increased to \$5.97.² Assuming that inhabitants of the cities received the same relative amount for these purposes as those in other regions of the state, the average per capita expenditure upon such purposes amounted in 1915 to \$13.42 and in 1923 to \$28.73. This is a slight overstatement of the absolute amounts received by the city dwellers because of the system of state grants in aid which assist the poorer country districts more than the cities but the relative increase which is shown is probably approximately accurate. While the rising price level accounts for a considerable proportion of the increase in expenditures, it nevertheless is clear that there has been a real increase in volume of free psychic income which is furnished by the state. Were it possible to carry our statistics back to 1890, this increase would have been even greater. Added to this should be the increasing sums devoted by private philanthropy to charities and to education.

It would probably not be far from the truth if we were to estimate the probable increase in real income which has been effected by such expenditures as somewhat between 2 and 4 per cent.

As at least a partial offset to these factors which tend to increase the workers' real income must be set the increasing urbanization of industrial life. In 1890, 22.2 per cent of our population lived in cities of over 25,000 but by 1920 this had increased to 35.2 per cent. An equal amount of housing and of land as that formerly enjoyed in the smaller towns has become impossible for virtually all of these urban workers. Far higher rents are being paid for much less space, while air and sunlight have in most of our cities become economic goods for which men must pay. With this has necessarily come a very much decreased opportunity for the worker to secure supplementary income from a garden, or from hens and pigs. Recreation,

¹*Financial Statistics of Cities*, 1923, p. 39.

²*Financial Statistics of States*, 1923, p. 32.

which in the country costs but little, has in our cities become largely commercialized and this operates to reduce the workers' real income.¹

V. The Probable Causes for the Increase in Real Earnings

What then have been the causes of this appreciable increase in real earnings:

1. It cannot, I think, be doubted that perhaps the major factor has been the great increase in production. Miss Ada Mathews' revision of E. E. Day's index of production shows the following rate of increase since 1899. The indexes for agriculture and for mining have been omitted. The total increase in the former in 1924 over 1898 was only 39 per cent.

TABLE 12.—INDEX OF PHYSICAL PRODUCTION OF MANUFACTURES IN THE UNITED STATES 1899-1924¹ (1899 = 100)

Year	Index of Manufactures	Year	Index of Manufactures	Year	Index of Manufactures
1899	100	1909	155	1919	218
1900	101	1910	159	1920	231
1901	112	1911	153	1921	179
1902	122	1912	177	1922	240
1903	124	1913	184	1923	283
1904	122	1914	169	1924	262
1905	143	1915	189		
1906	152	1916	225		
1907	151	1917	227		
1908	126	1918	223		

¹Ada M. Mathews, "The Physical Volume of Production in the United States in 1924," *The Review of Economic Statistics*, vol. VII, (1925) p. 215.

As a matter of fact the relative increase in production per worker was probably appreciably greater than that shown above. The Day-Mathews index is computed from the volume of raw materials consumed and the volume of products turned out.² It does not measure

²Such an index as has been computed can of course only measure the relative command over quantities of objective goods and services. It cannot measure the amount of relative satisfaction which a worker secures. To families who are in or on the brink of poverty, a given increase in relative purchasing power will probably yield far more than a proportionate increase in satisfaction. For, as Patten pointed out, it is difficult to conceive that consumers' surplus begins in any positive sense until after the basic necessities of life have been satisfied. The more poorly-paid groups have therefore probably gained more in satisfaction than is indicated by the index of real earnings. But against this must be set the fact that the customary and accepted standard of life has also risen. If one element of unhappiness is the relative disparity between desires and accomplishments, then perhaps the gap is still as great as ever. But in order to know this, we should have to measure the relative rate of increase in the *desired* standard of life as well as the increase in relative purchasing power. This it is at present impossible to do.

²For a description of the methods and sources used in computing the index of production for manufactures see E. E. Day and W. M. Persons, "An Index of the Physical Volume of Production," *Review of Economic Statistics*, Vol. II (1920) pp. 309-37; 361-67.

the relative amount of fabrication effected by manufacture at different times. Yet the latter factor should be considered. Even had there been no increase in the number of units of supply that were utilized nor any gain, for example, in tons of output, yet had these units been worked over more than formerly by our factories and if the ultimate products were consequently more refined, then there would most certainly have been an increase in the volume of production. There is every evidence to indicate that as countries increase in wealth, precisely this increase in the relative degree of fabrication does actually take place. The volume of production grows therefore through the expansion of this third dimension. Such a process has probably been developing in this country during the last quarter of a century and the failure of the Day-Mathews index to measure this third factor, appreciably minimizes the increase which has actually occurred.

It is of course important to determine how much the increase shown by the Day-Mathews index has amounted to on a per capita basis. There are three bases for measuring this; namely, (1) per inhabitant; (2) per manual wage-earner; and (3) per employee. In the latter term are included the clerical and salaried wage-earners.

The first method, whereby the relative increase in production is divided by the relative increase in the population, has been used by some writers but is defective. Since the rate of growth for the population as a whole has been appreciably slower than the rate at which the number of those employed in manufacturing has increased, the use of this method gives a higher per capita index than that secured by either the second or third methods. Yet since we are interested in output per worker as compared with earnings per worker, it is plainly improper to use output per inhabitant.

The relative number of wage-earners and the relative output per wage-earner are shown in Table 13 for the census years. The relative output per wage-earner is of course secured by dividing the index of total production by the index of employment.

TABLE 13.—THE RELATIVE OUTPUT PER WAGE-EARNER IN AMERICAN MANUFACTURING INDUSTRY 1899-1924. (1899 = 100)

Year	Relative Number of Wage-earners	Relative Production per Wage-earner
1899	100	100
1904	116	105
1909	140	111
1914	149	113
1919	168	118
1921	147	122
1923	186	152

This shows throughout a greater increase in output per wage-earner than in the real earnings which the workers secured. This discrepancy

became particularly important in 1923 when the index of production was at the very least, 152 as contrasted with an index of real earnings of only 128.¹ The question then arises as to what have been the probable causes of this discrepancy and what has happened to that section of the increase in physical productivity in which the wage-earners have apparently not shared. There are a number of explanations which have been advanced as possible solutions to this problem of which perhaps the most important are:

(a) The probable slight decline in the exchange ratios of manufactured goods for the products of the farm, forest, and mines. The fall in the purchasing power of farm products during the last five years is so vivid in our memories that many forget that the period 1899 to 1919 was one in which the relative purchasing power of farm products rose steadily. Thus the Day-Mathews index shows only a 37 per cent increase in the total volume of agricultural products as compared with an increase of 118 per cent for manufactured goods.² Professor Hansen's index of the relative purchasing power of farm products shows an increase of 32 per cent during these twenty years.³ Even after the decline in relative exchange value of farm products during the years 1919 to 1923, Professor Hansen's index still shows a gain of 8 per cent for farm products in 1923 as compared with their purchasing power in 1899. This would mean an almost corresponding decrease in the exchange ratio of manufactured goods. The relative decline in the purchasing power of manufactured goods during the years 1899 to 1919 was probably a major cause for the failure of the real earnings of city workers to rise more rapidly during this period.

(b) The apparently undoubted fact that in recent years a larger proportion of our output of manufactures has been devoted to the production of capital goods than was formerly the case. Day's index shows for example that the relative increase in the production of steel, other metals, stone and clay, and chemicals was greater during the period 1899 to 1919 than was that for food, textiles, tobacco, and liquors.⁴ Consumers' goods therefore have not increased as rapidly as have producers and hence the earnings of the wage-earners in manufacturing could not be expected to increase as rapidly as the total index of production for all manufacturing as a whole. Phrased in another way, this means increased relative savings in society as a whole.

(c) In the third place there is the possibility that a larger proportion of the national income is now going to marketing and selling as distinguished from manufacturing activities. The increase in the relative number of persons engaged in such activities would seem to make this a plausible explanation.

(d) There is the final possibility that a larger proportion of the annual

¹Using 1899 as a base, the relative yearly money earnings in 1923 were 294 and the relative index of the cost of living 229.

²Mathews, *Op. cit.*, p. 215.

³Alvin H. Hansen, "The Effect of Price Fluctuations on Agriculture," *Journal of Political Economy* (April 1925) Vol. XXXIII, pp. 201-02.

⁴E. E. Day, "The Measurement of Variations in the National Real Income," *Quarterly Publications American Statistical Association*, Vol. XVII (1920-21) pp. 557-58.

income is being spent by the middle and upper economic classes in luxurious expenditure for both commodities and for personal services.

Yet, if we measure the relative output in terms of all the workers employed, including both the salaried employees and the wage-earners, the apparent discrepancy between productivity and earnings becomes much less. If we regard clerical employees as no less productive than manual workers, then it would seem only proper to use the relative number of total employees, rather than that of the relative number of manual workers alone, as the figure by which to divide the total output in order to secure the best measure of output per worker.¹

In the years from 1899 to 1923 the total number of employees increased more rapidly than the number of wage-earners. This was of course due to the much more rapid increase in the number of office workers than in that of the manual workers. Thus while the number of wage-earners did not quite double during these twenty-four years, the salaried employees increased by nearly four-fold. There were consequently in 1923 two salaried workers for approximately every thirteen wage-earners whereas in 1899, the ratio was but one to thirteen. This more rapid rate of growth gives us a lower rate of increase in physical productivity per employee than is shown if we measure output in terms of wage-earners alone. Both indexes show the major portion of the gains in physical productivity per employee to have been effected since 1919 and more particularly since 1921. Thus three-quarters of the increase in output per wage-earner occurred after 1919 and seven-eighths of the increase in output per employee. It is desirable to compare these increases in output with the increases in the real earnings of all the employees in manufacturing. If we divide the total amounts paid to wage-earners and salaried workers by the combined numbers of these groups, we secure the yearly averages which are shown in the first column of Table 14. These are reduced to relatives of money earnings in the second column. This index has in turn been divided by the relative index of the cost of living and the resultant index of real earnings is shown in the third column.

The major portion of the discrepancy between output and earnings seems therefore to be explained, if we include clerical and lower-salaried employees as well as wage-earners. Yet some of the factors which have been mentioned have also certainly been operative during the period in question.

2. As has been pointed out, the increase in real earnings has been

¹This is of course subject to the qualification that a great many of the newly-created office positions are pecuniary rather than industrial occupations. They may bring revenue to their individual employers but not produce commensurate utilities for the consuming public; e. g., a considerable proportion of competitive advertising is of this nature.

TABLE 14.—THE AVERAGE EARNINGS OF EMPLOYED WORKERS IN MANUFACTURING (Salaried Workers and Wage-earners) IN TERMS OF MONEY AND REAL EARNINGS, 1899 = 100

Year	Average Annual Earnings in Dollars	Relative Annual Money Earnings	Relative Annual Real Earnings
1899	471	100	100
1904	532	113	100
1909	590	125	105
1914	692	147	108
1919	1273	270	111
1921	1330	283	118
1923	1384	294	128 ¹

¹It may occasion some surprise to find that the index of real earnings for the combined classes of wage-earners and salaried workers should be 28 per cent higher in 1923 than in 1899. Some may inquire how this could be when the index of real earnings for wage workers in 1923 was only at this figure while that for clerical and salaried employees was fully 11 per cent less than it had been in 1899. The latter force might naturally be expected to pull down the combined index below 128. What has prevented this from happening is the increase in the relative number of the clerical and salaried workers whose earnings are still appreciably above the average of the manual workers. This has been sufficient to offset the tendency for the real earnings of those who remained continuously in the group to fall.

more rapid in the last few years than it was previously. This sudden rise has probably in part been caused by the decrease from 1919 to 1923 in the exchange value of food products at the farm.¹ According to Professor Warren's index² this decrease was as follows:

Year	Purchasing Power of Farm Food Products
1919	102
1920	93
1921	79
1922	82
1923	87

This decline undoubtedly helped those city workers who continued to be employed, although the decreased ability of the farmers to consume was probably responsible for some of the unemployment that existed prior at least to 1923.³

3. It cannot, I think, be overlooked that the abatement of immigration during the war years of 1914 to 1918 and its restriction by the laws of 1921 and 1924 has resulted in a much smaller increase in the working population than would otherwise have occurred. This decline in the rate of growth of the working force has naturally re-

¹The increase in productivity per worker has also progressed at a more rapid rate in the last few years than before.

²G. F. Warren, "The Agricultural Depression," *Quarterly Journal of Economics*, Vol. XXXVIII, p. 197.

³*Ibid.*

sulted in an increase in the imputed productivity of each worker. I am more than dubious from an international standpoint of the morality of our restrictive immigration laws, but their economic benefit to the American workmen can hardly be denied.

4. It is highly important to recognize that the increase in real earnings from 1920 to 1924 was concomitant with an appreciable decline in the membership in and influence of the trade-union movement. During this period the fall in trade-union membership amounted to approximately one and a quarter million persons or 25 per cent of those enrolled in 1920. Trade-union funds have been reduced in addition and many unions which still have a large nominal membership are nevertheless in a far weaker financial position than they were five years ago. It is very difficult therefore to ascribe any large share of the economic gains which labor has made to the union movement. The evidence indicates that increases have been about as rapid in unorganized industries as in the organized trades.

5. One difference which must have impressed all is the fact that the real earnings of clerical and low-salaried workers over the period as a whole declined by 5 per cent while those of the manual workers in manufacturing and transportation increased by 28 and 22 per cent. The major cause of this disparity has probably been the extension of free public education and the increasing proportion of the children of the workers who graduate or attend the high schools of the country. These have been turned loose upon clerical work by the hundreds of thousands. Despite the relative increase in the demand for such services the numbers supplied have been sufficient to lower the salary scale to a point much below what would otherwise have prevailed. Clerical work in America has virtually ceased to be a separate noncompeting group and now draws its recruits in large part from the families of the skilled and semi-skilled workers and in many cases even from unskilled as well. The differences in earnings which still exist between clerical and all but unskilled labor would therefore now seem to be far more in the nature of "equalizing" than "real" differences. Another factor has been the fact that the proportion of women in clerical work has increased more rapidly than has the proportion in manufacturing. This has exerted a retarding influence on earnings.

6. Finally, the increase in the earnings of teachers is probably the result of three causes. First, the increased length of the school year which has expanded from 139 to 168 days. Second, the improvement in the quality of instruction. Teaching is becoming more of a profession and more time is now being spent in preparation for it. Finally, within the last few years the teachers have developed strong professional associations which have been successful in keeping their

cause before the public and by persistent educational and political pressure have increased appropriations for salaries.

VI. Some Probable Consequences of the Increase in Real Earnings

What are some of the probable consequences which flow from the increase in the real earnings of those employed which has been ascertained? The first is that of the increase in the net volume of savings on the part of the wage-earning class which has been so widely noticed during the last year. The volume of deposits in the savings institutions of the country has increased from 8.4 billions of dollars in 1912 to 20.8 billions in 1924 and the number of depositors from 12.6 to 38.9 millions.¹ This has meant an increase in savings per inhabitant of from \$89 to \$186, or a gain of 109 per cent. Since the cost of living has increased 76 per cent during this period, the gain in the per capita real savings of the country has been 25 per cent. A large part of this gain has come from the wage-earning classes. The amount of life insurance in force has increased during the last ten years from approximately 15 billions of dollars to 64 billions. The net amount of savings is of course measured by the insurance reserves rather than by the face value of the policies but these now amount to 10.5 billions for the life insurance companies alone.² Finally there has been the increasing purchase by workmen of stock in those companies in which they are employed which has recently been described by Professor Carver and Mr. Brookings.³ The importance of this movement has probably been exaggerated and it is, moreover, doubtful whether the workers in most companies should invest their savings in the same concern in which they have already invested their jobs.

The swelling of these three channels of saving does, nevertheless, indicate that the wage-earners have certainly not spent all of their increased earnings but that they have saved a considerable proportion of them and have thus acquired more of a stake in the property of the country.

The second consequence to be noted is that upon trade-union policy. Trade-unionism may have had its origin in the struggles by the workers to protect themselves from the exploitation of the capitalists, but for most, although not for all, of the organized groups in American industry, it has now become a business enterprise to secure a larger

¹*Savings Bank Journal*, Vol. VI, (March, 1925) p. 13.

²R. L. Cox, "Policy-Holder Ownership and Interest Through Investment of Life Insurance Funds," *Proceedings Academy of Political Science* (March, 1925) p. 75; A. R. March, "The Place of Insurance in the National Economy of the United States," *Economic World* (Oct. 17, 1925), p. 566.

³T. N. Carver, *The Present Economic Revolution in the United States*; R. S. Brookings, *Industrial Ownership*.

share of the products of industry for workers who are already above the subsistence level of living. Its tactics, as Patten would have said, have largely been transformed from a pain to a pleasure economy. The attempts by labor to adjust itself to this situation may be seen in the growth of the labor banking movement¹ and in the inception of the new trade-union life insurance company. This is organized labor's answer to employee ownership and to group insurance. A new type of competition between employers and trade-unions is then developing; namely, a struggle for the economic surplus of the workers and for the savings that are being accumulated by them.

A third consequence of the rise in real earnings is the comparative satisfaction on the part of most groups with our economic and political system. Since those who are not in the unions have been sharing in the increase in real earnings, they are not as susceptible at the moment to trade-union activity as they were a decade ago. This with the continuance of unemployment and the launching by the employers of employee representation plans is possibly why trade-union membership is still over a million below the high-water mark of 1920.

With this has also come a decrease in the opposition of the manual workers to the capitalistic system. There is apparently less interest in socialism than there was a decade ago and the movement for an independent labor party has at least temporarily been abandoned.

It should not be thought from all this, as some distinguished economists have recently hastily concluded, that all of the American workmen are now living in prosperity. There are, on the contrary, two classes who are suffering very keenly. The first is composed of a large percentage of the families of the less skilled workers where there are two or more dependent children. Our modern system of wage payment is very severe in its effects upon families with children. As long as we try, with our present production of wealth, to make equal grants to those with unequal numbers of dependents, we shall continue to have a considerable amount of poverty. The second group who suffer at present are the unemployed. The index of employment for the manufacturing industries for the first ten months of 1925 was nearly 10 per cent less than it was in 1923.² This has been a decrease of approximately nine hundred thousand workers plus the natural growth of population and the additions by immigration during these years. Some of these workers may have been absorbed in the self-employed trades but this scarcely accounts for any very large proportion. Unemployment has in fact increased since 1923. Those who walk the streets for work do not

¹See Richard Boeckel, *Labor's Money*, and Harry W. Laidler, "The Forward March of Labor Banking," *International Trade Union Review*, Vol. V, pp. 92-100; 220-26.

²See *Monthly Labor Review*, Vol. XXI, (December, 1925) p. 121. There was an improvement in employment during the closing quarter of the year.

personally share in the increases in real earnings which those who are employed enjoy. One of the most puzzling of our present problems is indeed the fact that wage rates and annual earnings have apparently been virtually maintained since 1923 in the face of an increasing force of idle men. Whatever may be the reason for this anomolous situation, although those who are still employed do fare relatively well in comparison with their advantages in the past, yet those who are not employed fare ill. Whether there are relatively more in this group now than there were in the nineties or before the war is a matter which only further research can determine.

In concluding, we may well ask ourselves whether we may look forward to a continued increase in real earnings in the future. There is still a great deal of waste in industry which can be eliminated and to the extent that this is done, real earnings can and probably will increase. Since, however, a large factor in the recent (although not in the long-time) gains of labor has been the fall in the exchange ratio of agricultural products, it is probable that this source of increase cannot continue for long. Barring any complications that may be introduced by the indirect payment of the allied debts in the form of agricultural products, the secular increase in population would seem to offer every prospect in the long run for an increase in the relative price of farm products and consequently for an increase in economic rent and in the price of land. If and when this occurs, then the real wages of city workers must be lowered unless such a tendency be counterbalanced by an equivalent or more than equivalent increase in the productivity of manufactures. The antagonism of interests which Ricardo discovered between the industrial capitalists and the country landlords is one in which the urban workers are involved in so far as the real earnings of those employed are concerned. The workers' standard of life is not the constant unit which Ricardo assumed but, like profits, it too can expand or contract as the farming class loses or gains.

Should such a fall in the real income of those employed occur, although it might be accompanied in its earlier stages by a rise in the volume of employment, trade-union activity would necessarily increase. As the workers, moreover, become accustomed to the increased quantity of goods and services which they can now command, failure to continue this rate of increase would also be provocative of discontent and this would strengthen the labor movement.

APPENDIX

TABLE 8A.—RELATIVE AVERAGE ANNUAL EARNINGS OF EMPLOYED WORKERS
IN AMERICAN INDUSTRY, 1914 = 100

Year	Wage Earners	Wage Earners	Clerical and Lower- Salaried Workers	Ministers	Teach- ers	Gov't Employ- ees	Postal Employ- ees	All Groups
	Manufac- turing	Transpor- tation	Trans. & Mfg.					
1890	76	71	68	85	46	...	76	71
1891	76	70	69	84	47	...	77	71
1892	77	71	70	85	48	96	76	71
1893	72	71	73	86	49	97	76	69
1894	67	69	74	88	50	97	78	65
1895	72	69	76	84	52	97	79	68
1896	70	69	77	82	52	95	79	67
1897	70	69	79	80	53	93	79	67
1898	71	69	80	79	55	90	78	68
1899	73	70	80	77	57	89	78	69
1900	75	70	80	78	59	91	79	71
1901	79	71	80	78	60	92	79	73
1902	82	72	82	79	62	93	79	76
1903	84	75	82	81	64	94	79	78
1904	82	76	83	81	67	94	79	78
1905	85	76	86	81	70	94	80	81
1906	87	78	88	82	73	95	80	83
1907	90	84	89	89	77	96	82	86
1908	82	85	90	89	81	97	86	82
1909	89	82	89	89	85	97	89	87
1910	96	86	92	86	87	97	92	92
1911	93	89	95	91	90	98	95	91
1912	95	91	97	94	94	99	95	94
1913	100	96	99	96	97	100	97	105
1914	100	100	100	100	100	100	100	100
1915	98	102	100	105	104	101	101	100
1916	112	109	106	108	109	103	101	111
1917	133	124	111	114	113	111	103	127
1918	169	175	136	126	126	122	113	163
1919	200	190	148	132	150	133	132	186
1920	234	227	168	152	176	145	145	218
1921	203	206	165	166	207	...	150	198
1922	198	199	162	173	226	...	155	194
1923	216	200	163	173	236	...	157	204
1924	217	200	166	179	243	...	...	205

TABLE 9A—RELATIVE ANNUAL EARNINGS OF EMPLOYED WORKERS IN
MAIN GROUPS OF MANUFACTURING INDUSTRIES.
Average 1914 for each group = 100.

Year	Food	Iron and Steel	Tex- tiles	Cloth- ing	Lumber and its Prod- ucts	Leath- er and Leath- er Goods	Paper and Print- ing	Tobac- co Prod- ucts	Land Ve- hicles	All Mfg.
1889	70	76	77	70	61	83	75	94	75	75
1890		78	78	72	61	86	78	98	76	76
1891		80	79	72	64	86	77	92	75	76
1892		79	79	73	64	87	77	93	75	77
1893		75	80	76	61	82	78	96	72	72
1894		68	70	75	56	80	75	94	65	67
1895		73	76	77	58	78	75	96	70	72
1896		69	74	72	62	76	72	91	65	70
1897		69	74	73	64	75	72	90	67	70
1898		72	71	74	68	74	69	89	71	71
1899	74	74	75	74	71	74	72	88	73	73
1900		76	79	76	76	74	72	90	74	75
1901		78	79	77	78	78	76	88	75	79
1902		81	83	83	83	79	77	93	84	82
1903		83	84	85	84	83	82	93	82	84
1904	83	80	80	83	87	83	82	92	81	82
1905		83	82	86	82	86	82	90	81	85
1906		87	87	90	90	88	84	90	86	87
1907		90	94	91	90	91	83	97	89	90
1908		80	90	89	88	90	86	98	82	82
1909	93	89	90	93	88	90	87	97	87	89
1910	94	92	90	96	77	93	89	98	96	96
1911	95	92	91	104	81	95	91	99	98	93
1912	97	94	96	101	88	95	98	100	99	95
1913	100	99	101	106	99	100	101	101	104	100
1914	100	100	100	100	100	100	100	100	100	100
1915	100	96	102	106	99	100	103	100	106	98
1916	111	115	117	119	111	110	107	107	118	112
1917	127	142	139	135	127	124	118	121	138	133
1918	161	186	177	165	161	151	150	139	179	169
1919	192	209	205	216	193	186	182	179	198	200
1920	220	243	251	259	222	215	225	210	232	234
1921	210	187	211	234	183	202	210	181	217	203
1922	201	181	205	222	183	194	210	179	205	198
1923	218	216	226	234	199	201	218	184	220	216
1924	227	215	214	216	202	196	220	188	209	217

TABLE 10A—RELATIVE ANNUAL REAL EARNINGS OF EMPLOYED WORKERS IN AMERICAN INDUSTRY—1914 in each Group = 100

Year	Wage Earners	Wage Earners	Clerical and Lower-Salaried Workers	Ministers	Teachers	Gov't Employees	Postal Employees	All Groups
	Manufacturing	Transportation	Trans. & Mfg.					
1890	102	96	92	114	61	...	102	95
1891	105	96	95	115	65	...	105	97
1892	105	97	96	116	66	132	104	98
1893	101	99	101	120	69	134	106	96
1894	95	99	106	126	72	140	111	93
1895	103	99	109	120	74	139	113	98
1896	98	97	108	114	73	133	111	94
1897	98	96	110	111	74	129	110	94
1898	98	96	110	109	76	125	108	94
1899	100	95	108	105	77	121	106	94
1900	99	93	105	102	77	119	103	93
1901	101	91	104	100	78	119	102	95
1902	102	90	102	99	77	117	99	95
1903	100	90	99	97	76	112	94	94
1904	99	92	101	98	81	113	95	94
1905	103	92	105	98	84	114	96	98
1906	102	91	102	96	85	111	93	96
1907	99	93	99	98	85	106	90	95
1908	94	97	104	102	93	111	99	95
1909	102	94	102	102	97	111	102	99
1910	104	93	100	93	94	105	100	100
1911	97	94	100	96	94	103	99	96
1912	99	95	101	98	98	103	99	98
1913	101	97	100	97	98	101	98	106
1914	100	100	100	100	100	100	100	100
1915	100	104	102	107	106	103	103	102
1916	105	102	99	101	102	96	95	104
1917	104	96	86	89	88	86	80	99
1918	108	112	86	81	81	77	72	103
1919	111	106	82	74	83	74	74	104
1920	114	111	82	74	86	71	71	106
1921	116	117	94	94	118	...	85	113
1922	120	120	98	105	137	...	94	117
1923	128	119	97	103	140	...	93	121
1924	128	118	99	106	144	...	...	122

TABLE 11A—RELATIVE ANNUAL REAL EARNINGS OF EMPLOYED WORKERS
IN MAIN GROUPS OF MANUFACTURING INDUSTRIES.
Average 1914 for each group = 100

Year	Food	Iron and Steel	Tex- tiles	Cloth- ing	Lumber and its Pro- ducts	Leath- er and Leath- er Goods	Paper and Print- ing	Tobac- co Pro- ducts	Land Ve- hicles	All Mfg.
1889	94	103	104	95	83	113	102	127	101	101
1890		105	104	96	82	115	105	131	102	102
1891		110	109	99	87	113	105	126	103	105
1892		108	108	100	87	119	106	127	103	105
1893		104	112	105	84	114	109	134	100	101
1894		97	100	107	81	115	107	135	93	95
1895		104	108	110	83	111	107	138	101	103
1896		97	104	100	86	107	101	127	91	98
1897		97	104	101	90	105	100	125	94	98
1898		100	99	102	94	103	96	123	99	98
1899	101	101	101	100	97	101	98	120	99	100
1900		100	103	100	99	97	95	119	98	99
1901		100	102	100	100	100	97	114	97	101
1902		101	103	104	103	99	97	117	105	102
1903		99	100	102	100	99	98	111	98	100
1904	100	96	96	100	105	101	99	112	97	99
1905		100	99	104	100	104	100	109	98	103
1906		101	102	105	105	102	98	105	101	102
1907		99	104	101	99	100	92	107	99	99
1908		92	104	103	101	103	99	113	95	94
1909	106	101	103	106	100	104	100	111	100	102
1910	102	99	97	104	84	101	96	106	104	104
1911	99	96	96	109	85	100	95	104	103	97
1912	102	98	101	105	91	100	102	104	103	99
1913	101	100	102	107	100	101	102	103	106	101
1914	100	100	100	100	100	100	100	100	100	100
1915	102	98	103	108	101	101	105	101	108	100
1916	104	108	109	112	104	103	100	100	111	105
1917	99	111	108	105	99	96	92	94	107	104
1918	103	119	113	105	102	96	96	88	114	108
1919	107	117	114	121	107	104	101	100	110	111
1920	107	118	122	126	108	105	110	102	113	114
1921	120	107	120	133	104	115	119	103	123	116
1922	122	110	124	134	110	117	127	108	124	120
1923	130	128	134	139	118	119	129	109	131	128
1924	135	127	127	128	120	117	131	111	124	128

REAL WAGES AND THE CONTROL OF INDUSTRY

By ALVIN JOHNSON

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Down to very recent times two main conceptions of wages have divided the field of economic thought. The first is the business conception of supply and demand. Whatever level of wages the higgling of the market may fix is according to this conception right and just. The second is what was once described as the industrial democratic conception. It regards labor as the preferred claimant in the division of the product of industry. It insists that a decent minimum of wages shall be paid before capital or management receive any return, and that any industry which is economically incompetent to pay such wages is parasitic and undesirable and ought to go out of business.

Latterly a new conception, inspired in part by the promise of an industrial upswing through improvements and inventions, especially in the field of super power, has been rapidly gaining adherents. This conception places chief emphasis on labor's claim to a share in the benefits of industrial progress. If an industry is thriving magnificently labor ought not be expected to content itself even with a comfortable standard of living. It has a right to more, on the simple ground that industry can afford to pay more.

This third conception bears a rather close analogy to the first I mentioned, the business conception. The old time business man asserted vehemently his right to pay less than a living wage. The new theory asserts the obligation upon industry to pay more than a living wage when it can afford to do so. The old conception did not, in fact, have a definite upper limit on wages, beyond the reasonable standard of living. But the whole process of reasoning of which it was part made such a standard the effective maximum. The new conception posits, directly or indirectly, the minimum of a reasonable standard of living.

Real wages, as a factor in industrial control, had no place under the business conception of rates determined by demand and supply. As a matter of theory money wages were assumed to adjust themselves more or less satisfactorily to the ups and downs of prices. It was a familiar generalization that these adjustments were apt to be belated. There was always a lag, a period in which labor was relatively cheap and profits correspondingly high. But only the advocates of plans for stabilizing the purchasing power of money concerned themselves in a practical way with this fact of fluctuations in real wages.

Neither can the newest conception of labor as rightful sharer in the benefits of an industrial upswing concern itself directly with real wages.

Whatever the future may bring in the way of substantial progress, it is bound to have its ups and downs and corresponding fluctuations in real wages. It does not alter the situation that these fluctuations are expected to play themselves out above the plane of a decent minimum of living. The real wage is the purchasing power of the laborer's money, and there is no way of giving fixity to it under the plan of participation in the prosperity of industry.

It is only with reference to the industrial democratic conception of a living wage that real wages can serve as a genuine factor in control. And no one will deny that historically they have been a significant factor. The conception of a living wage was immensely potent in building up the morale of the labor movement first in England and later in America and on the European Continent. Calculations of what the laborer could buy with his money brought home at last to the average citizen and tardily to the public authorities a sense of the moral necessity of giving labor a special place in the economic system. Labor could not be left hanging to the cracking whip of supply and demand. A reasonable subsistence became a paramount moral claim on industry.

How far this principle has already gone in its domination of public policy is indicated by the recent compromise settlement in the British coal mines. Fifty years ago the British government would have taken the position that whatever wages the coal mines could afford to pay would be just wages, though the miners' families were forced to live on crusts and scrapings. Some mines, of course, would make profits and royalties, but was it not an economic principle that wages had to be fixed by the capacity to pay of the poorest mines in operation? Twenty years ago the British government would have acquiesced in a wage settlement that gave a fair living, even if this meant the closing down of all the poorer mines. But now it admits the principle that wages must be kept at a fair level without closing down the poorer mines and forcing labor to pay in unemployment for what it gains in wage rates.

For the present the means of effecting this end is the subsidizing of the poorer mines at the taxpayer's expense. It appears to be obvious that this can not be a final solution. The taxpayer will not forever content himself with paying the losses in the poorer mines while the better ones are receiving royalties. Sooner or later, by some scheme of private pooling or by nationalization, the royalties and rents, as well as the normal profits of the industry, will be subordinated to the claim of the worker to a living wage.

Public sentiment in America has not yet become so thoroughly penetrated by the living wage conception as in England. We still

shrink from the supposed rigidity of wages fixed on this basis, and entertain ourselves with hypotheses of industry brought to a standstill because it cannot meet the minimum. We accept uncritically the *Kassandra* wailings over the present industrial condition of England, where a rigid wage structure is supposed to act as a barrier to economic recovery. A colleague of mine has made the pertinent suggestion that we ought to compare the present condition of England with that of the corresponding period after the Napoleonic wars. There was no rigid wage structure then, yet the industrial depression was desperately serious.

We Americans have many reservations on rigid standards. Yet the conception of adequate real wages is potent with us. It was accepted with little murmuring as a part of the basis of our war labor control. It plays an important part in conciliating or estranging public opinion in labor disputes. It is the only principle that can be brought to bear for improving the condition of the vast army of government employees.

When no effective plea is made on grounds of real wages the American public is apathetic to the cause of labor. It is apathetic today to the claims of the anthracite miners because the impression is abroad that the miners already enjoyed an adequate real wage. Without prejudice to the absolute merits of the miners' contention that the profits of the industry warrant increased wages, it may be safely asserted that this contention makes small impression on the public mind. If it were demonstrated that profits are excessive, the average American would conclude, not that wages ought to be raised above what is conceived to be a fair standard, but that prices ought to be cut.

Through generations of effort by the leaders of labor and through the ceaseless propaganda of social reformers the public mind has been given a set toward a fair standard of living as the proper objective of industrial control, so far as it affects wages. Much has thereby been accomplished for labor. Are we to assume that the work has been done, and that we can now pass on to new conquests under a new principle? We can answer this question only after a glance at the actual position of labor as a whole.

We have instances of industries so well organized that labor is gradually insinuating itself into the general structure as an equal partner in control of the industry. When labor has taken a place in the control of industry, keeping an observant eye on the market, prepared to make quick adjustments of wages, upward or downward as the trend of the market indicates, assisting in keeping up production and eliminating waste, it follows as a matter of course that labor will

become a direct participant in industrial gains, and may subordinate the standard of living in its policies.

But no considerable part of American labor has attained to such a position. For the most part its function is still militant. It has to fight for what it gets, and in fighting it needs to use every moral instrument it can lay its hands on. It has an effective instrument in the standard of real wages. Possibly the time may come when this instrument may give way to a better one, but it is difficult to see on what grounds any one believes that a better instrument is at hand.

With the exception of a few favored trades, most of American labor has still to achieve a fair standard of real wages. It would therefore seem to be the part of sound policy to push the conception forward, fixing it more deeply in the public mind, and developing its implications wherever possible.

Real wages, however difficult they are to define, are the ultimate objective of industrial control, so far as it affects labor directly. But in the world as it is wages are fixed, often for long periods, in terms of money which may at any time fluctuate wildly. Everyone knows what the consequences of this fact were in the time of war prices. All the public services exhibited the phenomenon of labor reduced to a lower standard—as a rule, 25 to 35 per-cent lower. Most employees of municipal utilities were in a similar case. In all industries not directly affected by the boom in production for war money wages were adjusted upward toward the original level of real wages only painfully, and with much loss through the temporary unemployment attending shopping around for jobs.

We shall probably not live to see another such upheaval in the price structure as attended the Great War. But we shall certainly have ups and downs of prices serious enough to play havoc with real wages calculations. Every long contract fixing wages contains a gambling element. Where response to changing price levels is sluggish, as in the public service and in unorganized public utilities, the gambling element is peculiarly pronounced. It would seem to be desirable, while the moral force of the standard of real wages still operates upon the public mind, to press for the adoption of real wages standards at least in public employments.

The fixing of wages on a purchasing power basis involves difficulties of definition and there is a prevailing impression that they would tend to rigidity, crystalizing labor in a position inferior to that which it might otherwise attain. So far as the public services are concerned the objection is irrelevant, because they are already crystallized on a money basis, and could hardly be more rigidly crystallized on any other. And so far as long-term contracts in private industry go,

it is by no means certain that the defining of the level of real wages through a period of time would act as a bar to the revision of standards upward upon the expiring of the contract, so long as standards of living remain a potent factor in control.

It is, of course, possible that America is entering upon a period of such rapid economic progress that labor as a whole may attain to a fair standard of real wages without effort. If that is true the real job of labor is not to maintain standards but to push on for a larger share in the surplus production. But I am somewhat skeptical about this new era. I think we shall have ups and downs in the next two or three decades, and that taking one phase with another, labor will have its hands full, maintaining present standards with a fair measure of improvement. There are no doubt many bodies of labor that could put themselves in a position to do much better. But for the mass the time-honored and effective policy of establishing and maintaining fair standards of real wages is probably worth conserving.

THE MOVEMENT OF REAL WAGES—DISCUSSION

GEORGE SOULE.—I have not had the opportunity to read in advance any of today's papers except Dr. Johnson's. It is probable, however, that the most careful study of the admirable papers by Professors Hansen and Douglas would reveal little ground for disagreement, except for one point made by Professor Douglas. He stated that bargaining power of unions could not be responsible for the increase of real wages since 1920, because apparently as large increases had occurred in non-union industries. We must remember that employers were warned that attempts to reduce wages too drastically would instigate organizing campaigns, as such attempts often had in the past. It is therefore difficult to say that the potential power of the unions had no effect on the non-union employers' policy and consequently on the movement of real wages in non-union industries.

I do want to call your attention to a paper by Professor Hansen in the *AMERICAN ECONOMIC REVIEW* of last March on factors affecting the course of real wages which is pertinent to the discussion. A conclusion of this paper was that during the past century real wages had shown an increasing trend, and that the principal factor in bringing about this increase had been increasing productivity. We now have Dr. Johnson arguing that most wage-earners cannot yet take advantage of increasing productivity to bring about increased real wages, and that they would gain more by concentrating on attempts to maintain a fixed level based on a minimum standard of living. The evident contradiction between these two points of view demands consideration.

The time is too short for a thorough analysis of Professor Hansen's argument in the paper above mentioned, but I want first to suggest briefly a few points in which it seems to me open to error. He builds up an index of money wages which, from 1820 to 1914, depends chiefly on scattered data of wage rates. Because two studies independently made of this earlier period happen to coincide closely, he concludes that they are sufficiently accurate for use. I should be inclined to think that the scarcity of the data for that period, the fact that the two independently derived series depend on almost the same data, and the fact that they do not take account of fluctuations of employment, give them too wide a margin of error as a measure of earnings, and make them inappropriate to splice to an index of earnings of factory workers in general for the later period.

Professor Hansen's index of the cost of living before 1914 is built up by an ingenious and laborious method from wholesale prices. Yet we know that since retail price data have been available, both the cyclical and long-term trends of retail prices have diverged so widely from wholesale prices, even in specific groups of commodities such as food, that wholesale prices are quite inapplicable as a measure of the cost of living. Even if Professor Hansen's wage data were sufficiently reliable, his cost of living data are therefore open to sufficient error to affect seriously his real wage index before 1914.

Incidentally I may at this point reply to a footnote in Professor Hansen's paper, in which he pointed out what he thought were errors in my paper on the productivity factor in wage determination, read three years ago before these associations. He stated that it was inaccurate to splice an index of weekly earnings from 1914 to 1922, derived from New York and Wisconsin, to an index of annual earnings in census years derived from the census, joining the two series in 1914. Because 1914 was a year of depression, annual earnings were then abnormally low, and form an improper base for a series of weekly earnings in subsequent years. This criticism would be justified if I had really obtained an accurate average of annual earnings in 1914. Unfortunately it is impossible to obtain such a figure, as many of us who have studied the subject have discovered to our sorrow. What the *Census of Manufactures* gives us is: (a) the wage bill for the full year; (b) the number of employees at a given time in each month. One can find the average monthly number of employees and divide the wage bill by that number. But the quotient takes no account of labor turnover, and hence of employees who were partially or totally unemployed during the year. The result is that the quotient is likely to be higher than a true average of yearly wages received by all the individual wage-earners, and especially so in a year of depression. This means that my procedure involves an error precisely opposite to that ascribed to it by Professor Hansen. It would be seriously wrong on that account were it not for the fact that the average weekly earnings for 1914 and subsequent years must be obtained by a similar method and contain a similar inaccuracy. This later series, by the way, Professor Hansen himself uses.

Professor Hansen also stated that having found that average per capita production increased 28 per cent in the twenty-two year period 1899 to 1920, I was obviously mistaken in saying that the average annual increment to per capita production was slightly under 2 per cent. Now I freely admit that I am poor at arithmetic, but I have a research assistant who would not allow me to say that twenty-eight divided by twenty-two equals two. This figure for the average annual increment was not the result of any such simple process, but came from a mathematical calculation of the trend. Such calculations, as we all know, may not be particularly accurate, but they are better than estimates of growth based merely on the first and last points of a given series.

These considerations are introduced, not for the sake of quibbling or of proving that my figures are any more adequate than his, but merely to indicate that any figures of the sort must be used with the utmost caution.

Professor Hansen also advanced reasons why real wages may not be expected to increase in proportion to the full increase in per capita production. In the first place, assuming the theory of marginal productivity to be correct, real wages may be expected to follow the marginal product of labor, which is different from the average product. In the second place, since the larger per capita product results in great measure from new machinery, if wages increased proportionally to the product, there would be nothing,

he said, with which to pay interest on the new investment. In the third place, wage-earners can share immediately only in an increase in consumption goods, whereas a large part of the increased product is in capital goods. And in the fourth place, wage-earners share only in an increase of production of the kind of consumers' goods which they can buy. Proceeding on these assumptions, he compared the course of real wages to the course of productivity in foods and textiles, and came to the conclusion that the two have substantially the same trend over a long period.

Now most of us would hardly assume without inductive confirmation that the theory of marginal productivity accounts very accurately for distribution of income in the economic world which actually exists. And I, for one, do not believe that any estimates of real wages or productivity yet made are accurate enough over long periods to furnish much evidence either in its favor or against it. I do maintain merely that in the comparatively short recent period when we have figures subject to a sufficiently narrow margin of error to be of much use, real wages at times have increased with general productivity and at other times have shown an opposite trend.

Abandoning, therefore, an imaginary world of perfect competition which leads automatically to uncontrollable results, and substituting for it the real world in which human controls exist and which we hope to control more fully for social ends, we may reasonably aim to bring about a growth of real wages such that wage-earners may maintain at least their present per capita share of the total product, and may hope to benefit not merely by increased productivity of food and textiles, but by increased productivity of houses (which, by the way, are capital goods in a sense), automobiles, radios, and so on, and of the capital goods necessary to produce them. This means neither waiting for the long-deferred operation of a supposititious economic law, nor as Dr. Johnson seems to imply, aiming for a static level of real wages.

Dr. Johnson seems to think that the process of raising real wages is the same as labor's sharing with the employer the short-time risks of the business cycle, and moving money-wages up or down as profits temporarily rise or fall. This is by no means the case; what the wage-earners should attempt to share is the fairly steadily rising trend of productivity and profits which would continue if the business cycle were eliminated. And I would also emphasize that in regard to increases in real wages it is a matter of indifference whether this result comes about through rising money wages or falling money prices.

Of course we ought not to abandon the conception of a minimum standard of living below which wages should not fall. But this conception needs to be supplemented by another. Employer admitting the abstract desirability of wages adequate for reasonable standards of living, usually try to demonstrate that they cannot be paid. Employees who have attained or surpassed minimum standards need to establish a claim to more compensation without hampering the growth of industry. In both cases the argument that real wages should be raised with some regard to the long-term

trend of increasing physical productivity is pertinent. On the side of production, increasing productivity permits higher wages without higher labor cost or higher prices. On the side of consumption, higher real wages permit absorption by wage-earners of the growing volume of products which increased productivity makes possible. Fuller recognition of this fact, not only by labor but by business men, economists, and public officials, constitutes one of the most noteworthy changes in economic opinion which has occurred in the last decade.

DAVID A. McCABE.—I have not had an opportunity to examine any of the three main papers before this meeting. Since coming into the room I have seen Professor Douglas' paper for a few moments and I shall devote my time to the questions raised by that paper as to the causes of the movement in real wages which he has so exhaustively described.

What is the source of the recent increase in the purchasing power of the rates of money wages paid? From what—or out of whom—has it come? Has it come out of increased physical productivity per worker? If not, and to the extent not, what is its incidence? And what has enabled labor to take possession of it?

Professor Douglas answers these questions for general groups of workers. The source, he states, is increased physical productivity per worker employed. I agree that speaking generally, this has been the most important factor in making the increase possible. But why has labor been able in recent years to convert a large share of this increased productivity of industry into an increase in real wages? Augmented productivity per worker, in physical terms, has not always resulted automatically in a rise in real wages, even after a considerable number of years. I have not Professor Douglas' figures before me for the increase in this productivity from 1890 to 1914 but my recollection is that his table shows that it was not unimportant. Yet real wages in manufacturing did not increase in that period, according to the chart here.

The difference in the bargaining circumstances of labor in the 1914 to 1924 period as compared with the previous fourteen years must not be overlooked in any explanation of why labor has been able to come out of the price swing with a higher level of wages as measured against retail prices. I agree with Professor Douglas that the restriction of immigration has been of paramount importance not only in leading to the general increase in physical productivity per worker employed but in improving the bargaining position of the workers also. But I cannot agree with him that labor organization has played a negligible role.

I do not agree with his statement that since 1920 organized labor has been weaker than at any time in the years under review. It was much weaker numerically in 1924 than in 1920, to be sure, but it was far stronger in numbers in 1924 than in 1914. Moreover, it was as strong in 1924 in most of the industries in which it was an important factor in 1914 as it was in the earlier year. And, as Mr. Soule has pointed out, we can

not measure the effect on the wages of unorganized workers of the stubborn resistance offered to wage reductions in the organized trades.

So much for the causes of real wage changes in general. What I want to suggest is that the question of the relative importance of increased physical productivity per worker and of bargaining strength, in bringing about this increase in real wages, be examined industry by industry. Improvements in productive processes come by industries—and unequally. Bargaining conditions also show up differently when considered industry by industry. The bearing of trade-union strength and trade-union policies on the relative importance of improvements in production within the industry and the bargaining position of labor within the industry as factors in giving labor a larger measure of real wages—which involves the question of the incidence of these changes in real wages—requires separate study for each industry.

Professor Douglas' figures indicate that the rise in real wages has been very unequal as between industries. It varies from 11 per cent in leather and leather goods to 35 per cent in food products. In iron and steel the increase is 27 per cent, which is about the average. No one of these is a well-organized industry, from the union standpoint. In paper and printing, which includes the strongly organized group in printing and publishing, it is 31 per cent. In clothing, in which the unions have been strong in recent years, it is 28 per cent.

How about improvements in production in these industries in recent years? I have no satisfactory figures here. But the National Industrial Conference Board, in a statement of November 9, 1925, offers some interesting findings. Wage levels in the iron and steel industry, the Board states, are approximately 140 per cent above the pre-war level, whereas the average price of the products is only about 34 per cent higher. This is a greater increase in real wages than was reached in any of the manufacturing industries by 1924, according to Professor Douglas' figures. The automobile industry shows a money wage increase of 122 per cent and an actual price reduction of 29 per cent. These cases are of course the most striking. The Board goes on to say that "similar conditions are found to obtain in the chemical, foundry and machine shop, the rubber, furniture, leather, and other industries." No one of these is a strongly organized industry. But note that neither paper and printing nor clothing is among those mentioned.

It would appear, then, that in some industries there have been important improvements in processes and managerial efficiency which have been accompanied by relatively large increases in real wages—and this in the absence of strong labor organizations. On the other hand, some strongly organized groups which are not named, at least by the National Industrial Conference Board, as among those conspicuous for improved productivity, have secured larger increases in real wages than have been obtained in some of those industries included in the list. What does this mean as to the relative importance of bargaining strength and improved productivity in these industries? What is its significance as to incidence?

Let us turn to the case of the anthracite coal industry. It is not one, apparently, in which there has been an increase since 1913 in physical output per worker employed. The natural difficulties are of course great, as has been pointed out by the Coal Commission. The wage rates of the tonnage miners have been increased 94.2 per cent since 1913. This represents an increase of real wages, based on rates of wages, of 11.9 per cent, in terms of the Bureau of Labor's latest cost of living index—173.5. In terms of Professor Douglas' cost of living index of 169 for 1924, it is approximately 15 per cent. This figure compares favorably with that of 11 per cent for the leather and leather goods industry given honorable mention by the National Industrial Conference Board for improvements in production.

But the tonnage men are only 44 per cent of the anthracite workers, according to the Coal Commission. There is no satisfactory index for the wages of the hourly men. The figures given by the Coal Commission indicate, however, that they have increased much more than those of the tonnage men. Some of them have gone up over 200 per cent. I do not say that they should not have been raised that much. What I am directing attention to is to the relative importance of bargaining power and productivity per worker in the increase, and the bearing of this on the incidence of the gain. The workers in the more poorly paid groups would doubtless have received a relatively large increase over the 1913 base without organization, but taking the anthracite workers as a whole I submit that they would not have received as large an increase in real wages had there been no union and had the physical output per worker been the same as it has been.

Let us examine the case of a group of organized workers in an industry in which the 1913 wages per hour were not considered low as compared with the hourly rates in other trades. In the building trades, according to the figures of the United States Bureau of Labor, the hourly rates in 1925 were 133 per cent higher than in 1913. As against an increase of 73.5 per cent in the cost of living (Bureau of Labor index), this is an increase of approximately 34 per cent in real wages, on the basis of hourly rates. Has the physical productivity per worker in the building trades increased at all comparably since 1913? Again I am not raising the question of desert but of the relative importance of bargaining strength and physical productivity per worker within the industry in securing the increase.

I realize that some of the figures I have been compelled to use are not exactly comparable with those Professor Douglas has worked out. I do not offer them as conclusive evidence of what has happened, but merely to support my suggestion as to the need of further study of these questions industry by industry, if we are to get a true understanding of the causes of the recent changes in real wages and the relative importance of the factors which have brought them to pass.

MAGNUS W. ALEXANDER.—I come before you neither as an economist nor as a statistician, but as an industrialist with many years of experience in industrial production who has been, and is now more definitely, interested in statistics and economics as they reveal facts and furnish guiding principles for the productive process. In short, I speak here as a practical engineer from within a large field of experience to students who from without the field of experience are by advice trying to do their bit in helping to usher in the better day in industry. Appearing, therefore, so to speak, as an interloper in your group of essentially students of the economic and social sciences, it becomes at once my duty, as it is also my pleasure, to talk with full frankness in setting forth the difference in our positions on the broad question of real wages and of production out of which they arise. It is in this spirit that I am discussing the question at issue.

The wage problem necessarily presents a quite different aspect to the responsible management of industry than it does to the social student. The difference is not due to a difference in high-mindedness, altruism, or social conscience in these two groups. It is rather a functional difference; it arises from the fact that each has a quite different task to perform, to which quite different responsibilities attach. The validity of any thought about such concrete matters as wages must be judged, therefore, in terms of the responsibility of the thinker in respect to the question; and its weight depends upon how much the thinker has at stake in his thought.

The student who is concerned with the changes in the economic position of the wage worker during the past hundred years and with the abstract justice of the distribution of the national dividend today, is in a much more free and much less responsible position in his thinking than the industrial manager who has to produce *today* and sell *tomorrow* the goods out of which wages were paid *yesterday*. If the former reaches an erroneous conclusion or makes a mistake in the index number, there is no great harm done, except perhaps to his own reputation, but if the employer is adjusting his wages to a wrong index number, or to an index number alone, or basing them merely upon the conclusions of the student's broad theory, he may soon find himself out of business or compelled to answer for his mistake, often to tens of thousands of people who have entrusted their fortunes to his judgment. And, in view of the complex interrelations of modern industry, his responsibility is often much wider than that.

Although the honest student is bound by scientific and logical considerations to make two and two total up to four, the industrial manager is usually confronted with the task of making two and two equal four *and* something *more* but, as anyone may see from the statistics of income, as often as not he is able to make them come to only four with something *less*—such are the subtle and often undefinable factors that influence the calculations of practical business life.

In our present economic organization, over a large field, industrial enterprise is in part necessarily a game of chance played between the enterpriser and organizer, on the one hand, and the public as investors,

workers, and consumers, on the other hand. The rules are fixed by the public and the essence of all of them is that the public shall always play safe. As investors they advance their savings to the enterpriser in the expectation that they play safe. As workers they insist upon being advanced, safely and regularly, the wages wherewith they enter the game as consumers. And as consumers they hold the cards and have the last play that determines whether the enterpriser shall profitably continue in business.

There is naturally a wide difference between the theory of playing safe and the practice of taking chances; but at heart the modern employer has at least as much longing for safety as the theorist has for adventure.

Experience has shown again and again that when those who have never faced the task of managing an enterprise come into position of immediate practical economic responsibility, they find themselves soon familiar with the non-Euclidian mathematics of concrete business life, as likewise modern industrial management is no stranger to the kind of thought that has been expressed here. In its reflective moods, honest industrial management is thinking and dreaming similar hopes and aspirations for an ideal economic and social organization, is focusing its thoughts and desires toward the same goal upon which alike the thoughts and aspirations of the honest student and reformer are converging. The difference of fundamental thought between these groups is not inherent; it is one of circumstance. The day dreams of the employer are only more limited perhaps by the fortuities of the business cycle; but it is clear from the current discussion of wage problems and wage theories by economists and labor leaders as well as by business executives that they are emerging upon a common ground of realization of the problem. It remains only to be seen how far each will be able to lay aside traditional impediments of group psychology which prevent the effective application of the common fundamental thought to the common problem, that of securing safety in economic production without sacrificing progress upon which future production in large measure depends.

A great step forward has been taken when it is realized on all sides that wages are not the money in the weekly pay envelope but the goods that are produced and the services that have been made available, directly or indirectly, to the people at large; and that it is the productivity and efficiency of industry, and not the opinion or desire or fiat of men, that determines the general level of real wages. An efficient economic organization, on the one hand, permits lower production costs and correspondingly lower prices of goods, which helps to increase the purchasing value of wages, and is, on the other hand, a prerequisite to the payment of wages, either on the prevailing or on a higher basis. Such efficient economic organization implies, however, a condition of relative freedom from oppressive and obstructive pressure, legislative or otherwise, while giving at the same time a full guarantee for the protection of the public weal. The realization of this idea sets an objective upon which all will agree; but it leaves unanswered many difficult questions upon which industrial man-

agement would be glad to have some light thrown, since the problem of answering these questions in practical terms ultimately falls upon it.

Although more efficient production may be a sovereign remedy for all economic ills, industrial management, upon whom rests the responsibility for achieving it, would like to know how the many-sided interests of the public can be reconciled with each other merely by ample doses of efficiency applied to the employer. The interest of the public in low prices as consumers; the interest of the public in high wages as workers; the interest of the public in powerful organization to protect group interests; the interest of the public in steady dividends and profits as investors; the interest of the public in low taxes as taxpayers and in larger government services as citizens—all those interests often clash and cannot be resolved by any formula of wages.

Moreover, it is easy to evolve attractive and plausible formulas for industry as a whole. The industrial manager, however, cannot deal with industry as a whole; he is concerned usually with only a particular industry and a particular establishment which he thoroughly understands; and the application of general formulas to particular cases is often difficult. The problem of efficiency in production cannot be dealt with, therefore, in terms of a generalized "industry," for the situation differs not only in each specific industry and each establishment but usually also in each process and as among the individual workers; and the problem is continually changing.

This then implies two things of greatest importance to this discussion. In the first place, it means that industrial management in seeking greater efficiency is dealing with a dynamic and not a static situation, and is bound to be hampered by any inflexible formula or organization based on the maintenance of a *status quo*. In the second place, it implies that industrial management, if it is to be responsible for increased efficiency, is compelled almost by mechanical necessity to deal with the worker as an individual or, at least, as a group constituted chiefly with reference to a specific process or establishment. Efficiency, first of all, is a problem of individuals and cases, in relation to particular processes or separate productive organizations. Scientific management, which is the fundamental basis of efficiency, is concerned only with the organization of men, materials, and machines, for the most effective manufacture of particular products in particular plants under particular conditions. Therefore, organizations and formulas embracing diverse groups, different establishments, diverse processes, however pertinent they may be to other purposes, are necessarily irrelevant or extraneous to the requirements of scientific management.

Until means are found for resolving these fundamental difficulties, it is doubtful if the wage problem, which is the problem of productivity, can be solved with a slide rule or a cost of living index number alone. Its solution, I submit, can be found only through a clear realization of the common goal of efficient productivity, and in the sincere, whole-hearted, and broad-minded co-operation in securing it, on the part of the scientific

student, the labor leader, the business executive, and all group interests whose welfare ultimately depends upon it.

In discussing how to divide the fruits of production equitably between management, labor, and the consumer, the important factor must not be overlooked, that by doubling and trebling the quantity of production through increased efficiency of management and labor, through greater mechanization of industry and through calling more mechanical power to the aid of the human worker, more will be available to divide. In this way, the whole level of life in which high wages are only one element, will be raised. The realization of efficient quantity production which allows high wages and high profits and at the same time low production costs and prices with attendant large domestic consuming power is the great economic contribution of American industrial leadership since the beginning of the new century, and this movement is only at its very beginning.

PAUL F. BRISSENDEN.—The notion seems to be somewhat general that it is an easy trick to translate money wages into real wages. I suppose that this is due, partly, to the fact that we translators have had provided for us, ready made, such indexes of the cost of living as those constructed by the Federal Bureau of Labor Statistics and the National Industrial Conference Board. Moreover, I believe that there is a tendency to underestimate the difficulty involved in both the construction of the cost of living index and its application as a deflation coefficient. Most of us, certainly, have overestimated the accuracy, and at the same time very often misread the meaning, of the results obtained by dividing the cost of living index into money earnings.

Mr. Hansen's careful appraisal of the alternatives for measurement confirms these reservations. With most of what he says, I find myself in accord. He wisely lays emphasis upon the distinction between the fixed budget and the actual consumption method. It is upon one of these or a combination of them that we must chiefly rely, I think, in our attempts to measure real wages or earnings. My experience with wages statistics leads me to place greater reliance upon the fixed budget method, relatively to the actual consumption method, than does Mr. Hansen. It seems to me that, even over fairly long periods, the fixed budget constitutes a measure of real wages which is sufficiently accurate, at least where our standard is a subsistence rather than a comfort wage. A fixed budget is, I think, less adequate as a measure of *absolute* amounts of real wages than as a measure of changes in such wages. If absolute amounts are desired, we must rely upon actual consumption budgets dovetailed into each other as Mr. Hansen suggests, or second best, upon a fixed budget periodically revised.

Mr. Douglas' discussion interests me particularly since only recently I was working upon an analysis of the wages of factory workers very similar in character to the more inclusive study upon which he is engaged. Mr. Douglas' procedure in dealing with the cost of living and the problem of the interpolation of intercensal years for factory earnings is a phase

of his work which is of no little interest. His technique with the cost of living factor reinforces some of Mr. Hansen's observations about the relative merits of the fixed budget as compared with the actual consumption method of measuring real wages. I think, however, that there is needless overelaboration in Mr. Douglas' construction of the cost of living index.

But my chief interest, I confess, is in the results at which Mr. Douglas has arrived, particularly for manufacturing. Since I have not had an opportunity to examine Mr. Douglas' tables of relatives, I am unable to be as definite as I should like to be. His report of an increase of 28 per cent in real earnings, between the nineties and 1924, per capita of those employed, for all manufacturing industries, leads me to suspect that, apart from the correction for unemployment (made in my analysis but not made in his), the results of the two analyses are not greatly different. My own index shows an increase of 27 per cent between 1899-1900 and 1923, in real earnings per capita of those attached to industry. Since 1899, 1900, and 1923 were all years of fairly full employment in manufacturing, my figures must closely approximate amounts per capita of those employed and must, therefore, so far as unemployment is concerned, be fairly comparable with those of Mr. Douglas. The base period which I have used is, of course, different from his; I have not seen Mr. Douglas' relatives for the nineties, but I imagine that the 1899-1900 level shown by them is not far from that for the nineties taken as a whole.

The chief and, I think, the only important deficiency in Mr. Douglas' analysis is, as he himself has pointed out, an index of unemployment. It is, no doubt, the absence of any correction for unemployment that is responsible for the wide difference between his results and mine when the percentage increase is measured to 1924 rather than to 1923. My figures indicate an increase of 16 per cent, over 1899-1900, in real earnings per capita of those attached to industry while his indicate, as already noticed, an increase of 28 per cent, over the nineties, in real earnings per person employed. I judge from the drift of the curve on his chart that, if we made similar comparisons of the changes to 1914, or to 1921, even wider differences in the two sets of figures would be evident. Since any adequate correction for unemployment necessitated the application of separate unemployment indexes to the different manufacturing industries studied, I was obliged to construct not one unemployment index, but a dozen. The multiplication of the several ratios of actual to full employment by the figures for full-time real earnings produced results which, quite naturally, showed very wide variations between the forty-one industries covered in the analysis. A few industries, malt liquors for example, showed declines in real earnings in the five-year period 1914 to 1919. Some industries, like printing and publishing, recorded appreciable gains in real earnings between 1919 and 1921 when unemployment caused serious declines in purchasing power in nearly all industries. Even in the figures for all industries combined, wide differences between regions are revealed. Between 1919 and 1921, for example, per capita real earnings in the District of

Columbia increased appreciably in the face of an almost universal decline. This situation also is to be explained by the persistence in the District of relatively full employment when most regions suffered severely from unemployment. But between 1921 and 1923 every state and every one of the forty-one industries examined showed gains in purchasing power per capita and, in general, these gains were record-breaking ones.

ROUND TABLE CONFERENCES

THE TEACHING OF ECONOMICS

H. H. BURBANK, *Chairman*

The Conference on the above topic was very well attended and the interest seemed to be general and keen. This was especially true of the case method of instruction. The discussion was altogether informal, but the first three speakers had been asked to develop certain aspects of the problem.

The Chairman, after discussing some of the previous conferences and the subjects which had been presented at various times, called for the scheduled papers, of which the following are summaries.

RAYMOND T. BYE.—In the few minutes which are available for such a discussion as the present, it would be impossible to treat adequately all of the problems which confront the teacher of economics. I have therefore selected three questions of interest for a brief analysis, viz.: What are the purposes of the courses in economics? What methods of teaching are best adapted to the accomplishment of such purposes? And what should be the place of the general economics course in the curriculum?

The first of these is equivalent to the query: What should the courses in economics do for the student? Its most obvious purpose, of course, is to give him a knowledge of the industrial structure and processes of the world in which he lives. This is a practical objective, which not only will equip him better to orient himself in his environment, but will provide him with useful knowledge of value in the struggle to make a good living. But we would not be doing our duty as teachers if we gave to the student no more than this. It should also be our endeavor to arouse in him that recognition of human interdependence, and that spirit of social altruism, that will make of him a more public-spirited and generous citizen. And, incidental to these two primary functions, the general economics course in particular, should give to the student that valuable training in logical and accurate thinking for which the discipline of a rigorous analysis of economic theory is peculiarly well adapted. Which ones of these aims will receive the major emphasis will vary with the predilections of the individual teacher and the peculiar requirements of the institution in which he is placed. In schools of commerce or business administration, the atmosphere of practicality might naturally cause the stress to be placed on the mere imparting of industrial knowledge in the economics courses; while the more cultural spirit of the colleges of liberal arts lends itself readily to development of the social and mental disciplinary aspects. But if the teacher yields to these influences he is making a serious mistake. In the business colleges, the economics courses are among the very few with which the student comes into contact where there is opportunity for him to acquire some altruistic vision and to do some abstract thinking; in such institutions, therefore, it is all the more important that this opportunity should be exploited to the limit. In the arts colleges, on the other hand, there are many subjects in which the student has occasion to develop his intellectual powers and to acquire a broad view of social questions, but few in which he is required to absorb specific information about the industrial institutions in which he lives. The economics courses in such colleges, therefore, should provide this necessary part of his education. But in any institution, all three of the

functions which have been described should be performed by the economics department, and it is doing less well by its pupils than it might if any one of them is seriously neglected.

After the aims have been decided it becomes necessary to carry out these aims by the most effective possible methods of teaching. It goes without saying that it is desirable to make the subject as interesting and as realistic as can be. This will not be difficult in the so-called applied courses, which deal with such tangible problems as those of money and banking, business cycles, transportation, marketing, and so on; but in teaching the general principles it presents a difficulty. For although the processes of industrial life are certainly very real and concrete, the principles which describe those processes are to a large extent quite abstract. So it happens that the science of economics is likely to appear to the "practical" man as very intangible and unreal. One of the most helpful aids in overcoming this impression is the use of definite problem-questions, which force the students to analyze and interpret specific examples of industrial phenomena in terms of economic concepts and principles.

The use of such material, furthermore, serves to impart a more thorough grasp of economic terms and laws than can possibly be achieved by the mere study of a text. It is not very difficult to memorize the definition of a word or the statement of a law; it is quite another matter really to understand them. Too often our methods of teaching encourage the superficial repetition of words and formulas, rather than that deeper mastery of the subject which alone deserves the name of knowledge. There are, it seems to me, two types of question that can be used in the classroom—"what" questions and "why" or "how" questions. The "what" question merely tests the student's memory; the "why" or "how" question tests his understanding. If we put to a student the question, "What is capital?" or ask him to "state the law of population," we may get a correct answer; but it is such an answer as a parrot might almost have been taught to make, and we have no assurance therefrom that he really understands the significance of what he is saying. But if we give him a list of such things as a house, an orchestra concert, a five-dollar bill, a locomotive, and so on, and ask him, "Which ones of these are capital?" we know that he cannot solve the problem unless he fully comprehends the meaning of his definition; or, if we inform him of the fact that the population density of Great Britain is much greater than that of China and ask him, "Why is the pressure of population in the former not nearly so great as in the latter country?" we have forced him to think about the Malthusian law, and we can judge with confidence from his answer whether he appreciates its applications to a practical situation. Problem-questions of this sort should be based as far as possible on topics of current interest, on material drawn from the daily papers, and on illustrations familiar to the student's experience. By dealing with him in this way we not only help him to acquire a deeper knowledge, but we also arouse in him a keener interest.

It is sometimes a revelation to a class—and not infrequently to the teacher also—to give an examination in which the pupils are allowed freely to consult their textbooks and notes. If the questions are of the problem sort, a direct answer to them is not to be found in the books, and the students can only solve them if they can see what principles are involved and if they have mastered those principles sufficiently to be able to use them. There is

no device which will show more convincingly to students and teacher alike the difference between memory and understanding.¹

I have mentioned the development of social altruism in the student as one of the aims that should be achieved in our teaching. This is most readily done in courses dealing with such problems as the labor movement, unemployment, inequality, socialism, and the like, where the community's welfare is of the very essence of the subject matter. Usually such courses come only after the introductory work in economics has been taken, however; and as many students take only one year of economics it becomes necessary to stress the importance of social interest in the course dealing with the elements. There is a commendable tendency to get away from introductory courses which attempt to cover everything in the whole domain of pure and applied economics from division of labor to socialism, and to concentrate upon the formal presentation of the principles, leaving the problems for subsequent courses. It is, in fact, impossible to present the elementary principles adequately in less than a full year, so that the introduction of problems must necessarily be at the expense of superficial work in the fundamentals. It becomes necessary, then, to develop the social viewpoint in the discussion of the principles themselves—a task which is not the easiest, but which can nevertheless be done. Division of labor, for instance, presents an opportunity for developing the idea of solidarity; risks in industry can be so treated as to stress the risks of labor; the formation of capital and the discussion of consumption give occasion for showing the social effects of spending and saving; while such topics as wages, profits, and rent lend themselves readily to the analysis of problems of poverty, unearned income, and so on. This is one phase of economics that can satisfactorily be handled by the lecture method. That, and the arousing of the students' interest, is about the only thing that a lecture is good for in the course in economics; it is entirely inadequate as a means of teaching the principles.

There remains for consideration the third question proposed at the beginning of this paper. What is the place of the economics courses, and particularly of the course in general principles, in our curriculum? What ground should it cover? In what year should it come? And what should be its relation to other courses? The answers to these queries will depend upon the institution in which the course is offered, and the peculiar needs of the students concerned. The recognition of economics as an essential part of every college education is now so general, that it is taught to a much greater variety of pupils than formerly, and it must be adapted to their needs. In colleges of liberal arts and in engineering schools, where economics is now often required, the course in general principles is for most students their only contact with the subject; the course must on that account be quite general and comprehensive, including a discussion of the more important economic problems as well as the more formal presentation of theory. Where there are women in the class, their lack of background for the subject necessitates devoting more time to preliminary description of business practices and institutions than is the case for men. In schools of commerce, on the other hand, it may be taken for granted that most, if not

¹A part of the foregoing paragraph is quoted from the preface to the author's *Questions and Exercises in the Principles of Economics*.

all, of the students will take several courses within the broad field of economics. The general principles course then becomes an introductory one, laying the groundwork for later detailed study of specific fields or problems; or perhaps it becomes a review, to draw together and interpret as a whole the previous work in particular subjects. It follows from all this that courses in the principles of economics should be specialized according to the functions they are to perform, and where there are several different needs to be met, it is desirable to have more than one general course, if possible. In the University of Pennsylvania, we have seven introductory courses in the principles of economics, each catering to a different group of students—all undergraduates.

All other things being equal, it is my judgment that courses in the principles of economics should not be taken prior to the junior year. Economic theory is too difficult to be grasped by the immature and undisciplined minds of freshmen and sophomores. Where the principles are necessary to provide a foundation for later applied courses, however, it may be necessary to give a general introductory course in the freshman or sophomore year.

This raises the issue as to the relation between the principles course and the more specific courses in economics. The usual practice in our schools of commerce appears to be to give the general economics course in the freshman year, the later years being devoted to the study of such subjects as money and credit, advanced accounting, commerce and transportation, corporation finance, marketing, international trade, industrial management, and so on. But as these subjects are commonly taught, there is little apparent relation between them and the principles of economics. They are fact courses, devoted to detailed descriptions of institutions and practices, with very little general interpretation. The result of this method is that the student soon forgets the smattering of elementary principles which he but half-acquired in his first year, and he finally graduates with a great mass of specific information but with little or no appreciation of the fundamental unity of it all, and of the general truths which underlie and interpret it. One of the great difficulties with our teaching is that we who conduct courses in theory do not make it sufficiently practical, and those who conduct courses in practical subjects do not apply general principles. Every course in the so-called applied fields—such as banking or industrial management—should be based directly on the fundamental course in economic principles, and should take pains to relate the appropriate principles to the interpretation of the specific data being dealt with. But even if this is done, it is not enough. There should be a course in theory at the end of the college career which will sum up, unify, and interpret the business training as a whole in terms of universal formulas and generalizations. For this reason we have decided at the University of Pennsylvania to introduce a course in the "Theory of Business" which will be required of all students in the Wharton School in their senior year. This course, taught by Professor E. M. Patterson, will consist of a thorough review of the principles of economics, taught in a practical way, that will definitely relate them to the students' entire four years of business training. A special effort is to be made to make this work a general interpretation which will show the essential unity of the different fields of economics. Thus the students will get not only the helpful groundwork of an introduction to general principles

in their freshman year, but also a systematic and more advanced course in theory by way of summary in their senior year. Whether or not this experiment will prove successful time will tell; but certain it is that we must bring out a closer relation between theory and practice than has hitherto prevailed in our teaching. Only in this way can we make of our students not mere filing cabinets, but intelligent, educated, thinking, human beings.

WILLIAM E. WELD.—It is with considerable reluctance that I attempt to recount our experience in the teaching of economics in Columbia College by the case method. At least a number of years of experience should be behind us before expressing any opinions. As a matter of fact, we have used the case system for only three months. Therefore my statements regarding methods and results should be received by you as tentative.

First: *What constitutes a case?* It is highly desirable that a case should be real and should have as much verification as the collector can possibly obtain. If the account is imaginary or has been modified to suit the collector's predilections, then both students and teachers are likely to lose confidence in the story. Again, each case should be *interesting* in itself. To accomplish this, sufficient detail and local color should be given. Furthermore, a case should be *significant* from the standpoint of economic theory. If the cases are not "selected" with some reference to an outline of economic theory the results are likely to be very scattering and disjointed from a pedagogical point of view. I see no harm in some method of selection providing the collector is a scientist rather than a propagandist. Experts in pedagogical theory who advocate the project method usually select their problems with a definite purpose in mind. The essence of the project method is to start with a problem. The case should not be considered merely an illustration of theory but the students should be led to find the principles in the case itself.

Second: *What readings should be used?* At the end of the cases a few definite and carefully considered questions should be given. In every course in elementary economics students should be encouraged to read in the textbooks. It is not necessary, indeed it is not advisable, that the student should find the answers to the questions in his readings. The readings should give him the underlying philosophy to assist him in answering the questions but they should not answer the questions for him. It is our opinion that new readings may need to be written which will be more suited to the case method of teaching.

Third: *Experienced teachers are needed.* The use of the case system in the teaching of economics demands more experience and knowledge of economic life than the textbook method. It also demands a new technique which must be learned. The teacher must immerse himself not only in the case itself but also in supplementary readings about the subjects discussed in the case.

Fourth: *The results.* There is no question in the minds of us who have been teaching the elementary course but that the interest of the students is greater than it was before. The students find the study of the cases more interesting than the perusal of the textbooks. We admit without argument that other things than entertainment are demanded in a course in economics, but on the other hand, the capturing of the interest of the students is surely

the first step in successful teaching. A by-product of the method has been the weighting of principles in economic theory according to their relative importance by the frequency with which they appear in different cases. In the usual method of exposition the students are not always able to decide what principles really are important. In the case system, this question is answered for them automatically.

The greatest difficulty in the use of this method is covering what has been considered the entire subject matter of elementary economics. The case system does not permit the same degree of speed in covering the course that the textbook method allows. It may mean certain omissions of the usual material. This may be considered by some an advantage rather than a disadvantage. Our experience has been that we can keep up with our schedule if we are willing to allow an occasional case which the students have studied to be eliminated from classroom discussion. It is advisable to discuss some cases thoroughly rather than a larger number in a slipshod method.

I think I voice the opinion of my colleagues when I say that we believe this system is one of great promise. The prerequisites of success are two: the right kind of cases and the right sort of teachers. If the future provides these two prerequisites, the case system will be a success. At least it will remove the chief objection which our students feel—that the principles taught are divorced from real life.

FRANK A. FETTER.—Confining his attention to the problem presented by the elementary course, which is admittedly much the most difficult to teach, the speaker divided his remarks into two parts: the first dealing with the diagnosis of the disease and the second with the treatment.

The source of the trouble lies first in the fact that this is the beginning course and that all beginnings are difficult. Secondly, it is the broadest in scope and in that sense is more comprehensive and fundamental and less elementary than many of the more specialized courses, which tend to be more largely descriptive. Thirdly, the rapid increase in the size of college classes is at the maximum in this course, for the more special courses are multiplied and the size of the classes in them thus is kept down. Fourth, numerous difficulties may be summed up under the phrase "methods of teaching" which comprise not one thing but many details. This may be perhaps better presented positively, than negatively, in what follows.

The treatment must consist of applying a series of precepts or prescriptions, the chief of which are here indicated.

1. Responsibility. Some one of the mature teachers in the department on permanent tenure must assume full responsibility for the conduct of the course, and exercise it continuously. In many places the elementary course has been the little Cinderella and has shown the results of this neglect.

2. Definite ideal. Some one of the three possible aims—vocational, civic, or cultural training—must be chosen and made predominant. In the judgment of the speaker the cultural is the highest and best, but cultural not in the sense of individual satisfaction but rather in that of intellectual power and ability to reason clearly regarding economic questions.

3. The maximum personal contact and discussion with students. This implies probably a minimum of lectures or their abolishment, and the meeting of students in small sections.

4. Careful planning of details as to material, dates of meeting, times of tests, assignment of problems and other supplementary exercises. This is the more necessary the larger the class and the greater the number of sections in which it meets.

5. Judicious preparation of well-balanced subject matter. This should combine historical, descriptive, theoretical, and contemporary problem-material and subjects. There is place here for the case method.

6. Experimentation. The course must not be permitted to become static. It must be varied in form and in method, not only to keep it from becoming a routine matter to the students on the campus, but to keep the teachers constantly on their mettle.

7. Collaboration with the other courses in the department, in part by anticipation pointing out in advance various subjects in which the elementary principles will be used, and in part by retrospect, use, and repetition in the advanced courses. Only in this way can the interest of the students be enlisted in advance, and a growing appreciation of the purpose of the elementary work be built up in campus opinion.

8. Faith in theory and principles. This should be positive and not disputatious. The elementary course is suffering in many places from the breakdown in the older economic theory which has not always been replaced by a positive faith in anything else. Better belief in anything than no belief at all.

9. Hope and ambition in the younger teachers who are participating in the work. The weekly conference, presided over by the professor in charge of the course, should be the most profitable opportunity for the younger teachers. No other subject in the curriculum calls for so broad a view, or has in it so much opportunity for intellectual and pedagogic development.

10. Loyalty. There must be team work in the teaching. The larger the group of co-operating teachers, the more difficult this becomes. The aim must be unity in the general features of the course, with variety and freedom to the teacher in the development of his own ideas and possibilities.

The remedy for the evils in the general course is thus not to be sought in a panacea or in any patent medicine, but in patience, industry, inventiveness, and in the union and exercise of all the virtues of the calendar.

The discussion from the floor was spirited. The case system called forth both attack and defense, but in general there seemed to be agreement that this method of instruction should have a thorough trial and that some means should be devised for the exchange of opinion, experience, and material. Professor Sherman of Lake Forest and Professor Mayer of Tufts took issue on a number of points raised by previous speakers and expressed scepticism regarding the expediency of employing case material. Professor Shortliffe of Colgate was enthusiastic in his support of the case method, contending that this method offered the only hope of making the subject realistic. Professor Vanderblue of the Harvard School of Business spoke effectively regarding the limits within which the case system could be employed.

Numerous speakers referred to the problems more or less peculiar to the small college. Professor Gumbart of Connecticut Agricultural and Professor Watson of Haverford emphasized this situation.

Among numerous other speakers from the floor, Mr. Dozier of Washington stressed the need for theoretical courses; Professor Folk spoke of the

valuable teaching material to be found in trade journals; Professor Carroll of Bates emphasized the importance of an evolutionary point of view for the understanding of environmental conditions; and Professor Sherman suggested the possibility of eliminating the so-called outside reading and requiring the instructor to meet his students for some nine hours each week.

At the request of Professor Persons, the Chairman discussed the teaching of economics in the English universities and at Harvard. He spoke of the difficulty, if not the impossibility, of teaching principles to a large proportion of the undergraduates electing courses in economics irrespective of the method employed. Although the necessity for the trial of new methods, especially the case method, was stressed, the opinion was ventured that methods were of minor significance, while the indispensable factor was the well-trained and enlightened teacher.

THE CONSUMING POWER OF LABOR AND BUSINESS FLUCTUATIONS

HERBERT FEIS, *Chairman*

This paper is intended to be merely an introduction to the subject under discussion—which has been called the relation between wages, the consuming power of labor, and the business cycle. I conceive of the subject as an investigation into wage policy, as an attempt to discover what part current wage policies may play as a cause of industrial fluctuations, and what wage policies may best serve to end or limit extreme fluctuations, the evil effects of which are beyond dispute.

I have been reviewing the economic literature devoted to the analysis of industrial fluctuations, the literature of business cycles, so called. This review revealed a large measure of agreement upon points of great importance in the consideration of the question before us. This agreement tended to cover, firstly, the ordinary behavior of wage rates during the various phases or stages of industrial fluctuations; and secondly (though here the evidence is still very incomplete), the variations in the proportion of the total sum paid out as wages and salaries to the total value product of industry during the same periods of fluctuation.

This agreement tended to extend to the following points among others:

(1) That ordinarily during a period of rapidly increasing industrial activity and rising prices, wage rates rise more slowly than wholesale prices, and somewhat more slowly than retail prices.

(2) That during such periods the rates of profits and the volume of capital invested for productive purposes increase. The available statistical evidence does not go far enough back to enable us to be certain whether during such periods the percentage of the total value product paid out as wages and salaries declines, but there is a presumption that way, especially during the early stages of the period of expansion. This is naturally somewhat a matter of special circumstance; if the period of increasing industrial activity is accompanied by relatively stable prices as during the recent past, this result may not take place.

(3) That after a certain point in the period of increasing activity, the productive power of industry and the actual volume of consumption products tended to increase more rapidly than the purchasing power available or spent for consumption purchases. This possibility is emphasized

particularly in the publications of the Pollak Foundation, but suggestions of the same fact are found throughout the literature.

(4) That producers and merchants, even while they are busily occupied in increasing the volume of production and stocks, live in the shadow of the fear that consumers will not buy at profitable prices the goods they are producing and stocking. They, therefore, are at pains during this period to store up large corporate surpluses for security.

(5) On this next point there is somewhat less agreement than on any of the others—that after a certain point in the period of increasing activity, the increase in production costs, particularly of unit labor costs, tends to curtail profits and lead to contraction of industrial activity.

(6) That during a period of declining industrial activity and falling prices, wage rates fall less rapidly than wholesale prices, and somewhat less rapidly than retail prices, and sometimes the final decline is not as much as the decline of prices even during a prolonged period of depression.

(7) That during such periods, rates of profit and the volume of industrial investment fall. Again lack of data prevents us from being certain as to the variation in the share of the total value product paid out as wages and salaries, though there is a presumption that it may increase especially at the beginning of the period. Special circumstances must play an important part here also, and at the point of lowest activity the share of the total paid out as wages and salaries may show a decline rather than the contrary.

Accepting these tendencies as true and characteristic of most cycles of industrial fluctuation, what wage policy would seem to be most advantageous during the various periods of fluctuation, best calculated to keep industrial activity moving steadily ahead? I assume, temporarily, to advance these speculations, that if the elements of an advantageous wage policy can be discerned, some way will be found of putting such policy into effect by the gradual education of industrial opinion, by changes in methods of remuneration, in the distribution of industrial ownership and the like. I will return to that subject later on. I also leave out of account the difficulties that speculations on this subject must reckon with, because of the fact that during all the phases of industrial fluctuation, the position of some industries differs greatly from the general position and trend, and that variations of a similar kind also exist between different enterprises in the same industry.

Even with these simplifications of the situation, the opinions I am about to venture will be found to partake of the nature of questions as much as of answers. During a period of increasing industrial activity and rising prices it would seem advantageous on all grounds that there should be a fairly prompt upward adjustment of wages. "Fairly prompt"—how is that recommendation to be construed in practise? If the period of increasing activity is one of recovery from a state of serious depression, immediate wage increases might cut it off prematurely. If, on the other hand, profits rise freely and continuously, if immense undistributed earnings accrue and other savings accumulate, the way is prepared for an inordinately rapid and great enlargement of productive capacity, which is likely to produce its own disastrous finish. What possible guides to judgment in this matter are there? What possible bases of wise decision in the matter of policy? Several can be suggested. Price movements, per-

haps? If so, price movements of what commodities and services? Neither the indexes of cost of living, nor the ordinary indexes of wholesale and retail prices would be entirely satisfactory for the purpose. Besides, those conditions and influences which bring a period of prosperity to an end may come into existence even though the increase in industrial activity has been accompanied by no rise in prices, or only a slight rise. But is there any better guide to wage policy than these price movements? Profits? If so, what range of profits and for what period of time; and how are we to make allowance for the large differences in the profits of different industries and enterprises? Perhaps neither price nor profit changes offer the best guide to decision, and we must seek it in another range of facts, such as a comparison of the growth of purchasing power in the possession of consumers and the money value of the goods produced for sale at prevailing prices? Or possibly a combination of the alternatives?

It is plain that at the present time we move almost blindly in our settlement of wage questions during this period. The condition of the labor market, the temper and bargaining spirit of the workers, and the length of existing wage contracts determine the course of events, and not intelligent prevision.

Problems of the same type are presented by the opposite period of industrial fluctuation, that of declining activity and prices. Even if the course were practical, is it advantageous to have wages reduced as soon as the period is upon us, or, it may even be suggested, as soon as it is impending. There are arguments of some weight both for and against this course, based upon our experience of past industrial fluctuations. In the past, banking and credit necessities have sometimes required a decline in the price level attained, though it may be hoped that under the Federal Reserve System such situations may seldom recur. But, if they do, some downward adjustment of wages will ordinarily be necessary. What guides shall be accepted as to the necessity and as to the amount of the wisest reduction? The necessities of the banks or the currency system? We know by experience how hard it is to stop the wage decline at that point. The decline of prices, perhaps; but then the same problem of what prices must be faced. Or again, perhaps it would be wisest to seek some more complicated guide to judgment such as a comparison between the volume of purchasing power in the possession of consumers and the value of the products offered for sale at prices that shall not entail too great a loss? For all our controversy on the subject, how much, if any, progress has been made towards the ascertainment of an advantageous wage policy during a period of declining activity and prices! Nor have I exhausted the considerations deserving attention in any attempt to determine one? It may sometimes be true that, without a decline in production cost greater than can be secured in other ways than wage reductions, the revival of consumers' demand and of production will take place more slowly than if wages were reduced. Yet it is also well established that wage reductions, and particularly the anticipation of continued wage reductions, may produce a prolongation of a depression long after the banking necessities—if they ever existed—have been met. It would appear that if it can be made practical, a wise wage policy would limit wage reductions. But is it practical or possible to get common consent to such a course even if we could work out a proper theoretical and statistical

guide for that limitation? Or must we here too simply permit events to run their course, wages to be reduced as much as possible wherever they can be, and recovery only to begin when the hope of further wage reduction passes, or the futility of further reductions becomes apparent?

For all of its complexity and difficulty, I am more hopeful at the present time of the possibility of working out the essentials of an advantageous wage policy for periods of industrial fluctuation, than I am of having it adopted. Even if those interested in the subject succeed in their efforts to master the problems of policy involved, and their numbers increase ten-fold, could a way be found to make this policy effective in actual industrial practise in an industrial system under which each group and industrial enterprise can hardly look beyond what appears to be its own immediate interest? Progress towards the general acceptance and enforcement of a previously formulated wage policy will be slow, if it takes place at all. Chief hope must be placed in the creation of regular machinery for the adjustment of wages in different industries, though single enterprises may contribute something to the end in view by special plans or policies of their own invention. Most of the elements of wage policy discussed above would have to be widely applied, if they are to be successful.

It may be, in fact, that the desired end can be more nearly attained by indirect means. Would the spread of labor organization help to bring about the desired result? Would programs of public works and of unemployment insurance? What can be effected by continued education in the use of business statistics and the continued improvement of these statistics? Would the wide spread extension of employee stock ownership or profit-sharing plans afford a means of keeping stable the sharing out of the product of industry, the maintenance of a proper balance between production and consumption. The imagination can find much to play with in that field. Or lastly, may it be possible by radical changes in banking and credit policies so to adjust consumption and production as to secure steady forward movements without extreme fluctuations.

I forbear the recital of further suggestions. Both the indirect and direct approaches to the desired end merit further exploration. For, in the subject under discussion, in the changing relation between the totals received as wages and the total product in industry, and in the changing relation between the purchasing power received by the workers (or used by them for consumption) and the selling value of the goods produced, we are dealing with two of the important, if not most important, generating causes of extreme industrial fluctuation.

JOHN P. FREY.—Depressions in business, like a calamity, overwhelm industry and commerce so frequently that the study of their causes has occupied much of the economist's time. In fact the economists inform us that these depressions come in cycles which can be forecast with reasonable accuracy. Some tell us that these cycles are the result of the operation of economic causes, which move as naturally as the heat of summer must be followed by the cold blasts of winter.

We have presented to us what seems to be a logical economic cause. At the bottom of a depression no one is willing to invest money; the merchants are unwilling to place orders with manufacturers; the banks are unwilling to make loans. For a while the people reach the border line of absolute

necessities. There is a large army of unemployed barely able to maintain existence.

The accumulated goods on the merchants' shelves are slowly consumed, compelling the placing of orders with producers. These producers are able to put a few men at work. These additional employees immediately begin to buy more than while idle. In time business becomes what is called normal. The banks lend money more freely. The manufacturers, seeing the opportunity for gains increase their volume of production, and soon the peak of prosperity is reached.

The opportunity for profits leads manufacturers to increase the volume of production to full capacity. The merchants load their shelves with goods. But in time it is found that shelves and warehouses are overstocked, the orders for production become smaller in number, and industry and commerce gradually halt, until finally another depression affects the country.

It is equally true that great wars also enter into the economist's calculations, but even these are pictured as having an economic basis which corresponds somewhat with the one just described, wherever the great industrial countries find themselves in competition for foreign markets.

The trade union movement is not satisfied with these explanations as to the main causes for so-called cycles of business. They believe the reason is to be found largely in the fact that the wage-earners have not received a wage rate which was economically sound. A sound basis for wages would be a rate which would equal man's power to produce. Such a wage rate might not prevent booms or depressions, but it would very largely modify both. It would not be able to prevent overexpansion, but it would limit the injurious effects. It could not prevent panics, but would very greatly lessen their injurious results.

The classical explanation for cycles of business seems to be based somewhat upon the thought that the volume of production per capita in the industries remains largely the same over periods of time. At least this seems to be the conclusion to be drawn from some of the explanations of economic forces which are presented to us.

There is probably nothing more impressive in modern industry than the enormous increase in man's power to produce. The last two generations have witnessed the most startling revolution in man's capacity to produce which the world has witnessed. Increased productive capacity, which has come to the farmer through modern agricultural machinery, has been equally significant in modern industry. The industrial engineer has studied production for the purpose of eliminating unnecessary labor and has arranged the plant and the machinery so that raw material travels the shortest route from the stock room to the freight car in which the finished product is shipped. The inventor has constructed machinery which enables one workman to produce more than a hundred could a few years ago. Hundreds of great streams now pass through turbines, generating power in such enormous quantities that the imagination is staggered. Yet, we seem only to be at the beginning of an era in which the powers of nature, machinery, and management are revolutionizing man's power to produce, increasing it to such an extent that what formerly took years to produce can now be manufactured in a few days.

One of the features of this wonderful period into which we are entering,

is the fact that all of the water power now connected with turbines cannot be used, that all of the machinery now installed cannot be operated, because the producer is unable to find a market for the product of his plant.

We are told that 50 per cent less miners, working seven hours a day, five days a week, would produce all of the coal which we can consume, or which can be exported, and machinery constantly being introduced into the mines is greatly increasing the miner's capacity to take coal out of the earth. The shoe manufacturers of the country are unable to operate steadily because, with their present equipment, they are prepared to make more shoes than the people can use.

This same condition is true in a majority of our industries. Why is it that with this tremendous power to produce there should be idleness, and that manufacturing plants should be operated but part of the time? Is it not because the capacity of modern industry to produce exceeds the power of the mass of the people to consume and to use? Putting it in another way, is it not a fact that the wage-earner's power to produce has not been equalled by his power to purchase? His real wage has not increased in proportion to his power to produce.

The statistician's conclusions may not be absolutely dependable. They probably cannot be relied upon except to indicate general tendencies. What is important is that all of those who have studied the question are unanimous on this one point, that man's increasing powers to produce have very greatly exceeded man's power to purchase.

The wage rate has not kept pace. The greatest problem facing modern industry is the fact that it has failed to establish a market which could purchase its products. Unless wages increase in proportion to the increasing power of industry to produce, depressions in business must become increasingly frequent and severe. Cycles of business will undoubtedly continue, but the extent and duration of depressions will be influenced very largely by the purchasing power of wages which are being paid.

Wages have been considered for too long upon the basis of what the wage earner should receive, his standard of living, or an amount sufficient to enable him to save. Industry and commerce, for its own salvation, must see that the wage-earner's capacity to buy keeps pace with the capacity to produce.

It is not simply a question of what labor should receive. It is as much, if not more, so far as industry and commerce are concerned, a question of whether a condition will exist so far as wages are concerned which will enable industry and commerce to develop and to function still more successfully.

Water power, huge plants, marvelous machinery, and perfect management are all of little value, unless they can be operated; and they cannot be used continuously for purposes of production unless there is a market in which their product can be sold; and this market cannot exist unless sufficient wages are paid to the workers. The workers' real wage—the purchasing power of their wages—must increase in proportion to man's increasing power of production.

WADDILL CATCHINGS.—Recent studies have given little, if any, help toward establishing wage policies which would increase the consuming power of labor. The same underlying conditions which have controlled

in the past the amount paid as wages may be expected still to exercise the same control.

The wages we are discussing are advances made in the production of goods for sale at a profit and constitute the large part of the cost of production. Goods are not often produced for sale unless it is expected that they can be sold at a price greater than all the costs. Wages can be high, with little unemployment, only because of the expectation that goods can be sold at high prices. When it is expected that goods must be sold at low prices, if sold at all, wages are low and there is much unemployment.

Expectation regarding the sale of goods and the sales price of goods determines the amount of goods produced and the wages which are advanced in production. Today we have such facilities for production and such methods of financing production that all that is needed to bring about the production of goods and the payment of wages in connection with this production is a well-founded expectation that when produced the goods can be sold at a price a little higher than the cost.

Usually when goods are produced there is no assurance that they can be sold above a particular price. As the price may be lower, effort is made to keep the costs low—which means that effort is made to keep the total amount paid as wages as low as can be. Rarely are sales conditions such that the all-important consideration is to get the goods produced regardless of the amount paid as wages. When such conditions do exist the possible sales price is so high that the relative purchasing power of such wages is low, regardless of the dollar amount.

This tendency on the part of the producer to keep low the total amount paid as wages is met on the part of the wage-earner with a necessary attitude which contributes to the same end. Most wage-earners are dependent upon employment to secure a living. When there is much unemployment a worker has the alternative of accepting low wages or going without work.

There is usually this two-fold pressure upon wages to keep the total amount down—that of the producer because it may be necessary to sell the goods produced at a price below cost and that of the worker because he may be unemployed. When this condition does not exist it is almost certain to be true that prices are high and that while the dollar wage may be high, the real wage is actually lower. For short periods when conditions are changing there may be high wages and low prices, but these times are offset by those other periods of change when there are low wages and high prices.

With these underlying conditions controlling, there is little scope for a discussion of the best policy to pursue regarding wages. In fact wage policies today are established by conditions beyond our control unless we go deep into our economic life.

To gain higher real wages we must deal with fundamentals. Little progress can be made by discussing temporary gains which are soon offset, or dollar increases which mean inevitably higher prices and lower

real wages. Likewise the situation must be considered as whole. Gains of one class of labor at the expense of another class of labor are no gains at all. An increase in the amount received by labor as a whole without a corresponding increase in price is what we seek.

In dealing with fundamentals it is manifest that real wages can be increased in only one of two ways.

First, by increasing total production. Second, by increasing labor's share in what is now produced.

So far as increasing total production is concerned, we cannot today consume what we can produce; partial operation is necessary in almost every line of business. In almost every direction the fear of overproduction retards production. Little can be gained therefore in discussing how to increase total production until we discover how to consume what we can now produce.

With regard to increasing labor's share in what is now produced, there have been of course countless suggestions. All involve reducing someone else's share—profit, interest, rent—or increasing total output and thereby increasing the relative share of labor without actually reducing the amount received by others. These suggestions involve fundamentals of our profit economy, and changes which threaten the continuance of the production, and the real wages which we now have. These suggestions could be discussed indefinitely. It is sufficient to say here that the way out has not yet been made clear.

There has been raised recently, however, a question which goes beneath this entire discussion, and attacks a fundamental assumption underlying our previous discussions of higher real wages. We have assumed heretofore that when we produced goods in the right proportions—in other words, if we had a properly balanced production—someone would have the money income to buy the goods. We have assumed that in our highly complex economic structure, with our bank credit expanding as business expands, our building of new capital facilities and equipment, our banks of deposit, our savings banks, our insurance companies, our vast transportation facilities, with the great diversity of our activities so that one business was going forward while another went backward—we have assumed in this complex life that someone always had the money income to buy the goods produced. We have assumed that our fundamental difficulties have been unbalanced production, too rapid expansion, too great use of bank credit, buyers' strikes, oversaving by the rich, overbuilt industries, etc.

In discussing higher wages, we have assumed that the total money income available for consumption was enough and that the problem was to get a larger part of this for labor.

This fundamental assumption regarding consumer purchasing power has now been questioned.¹ It is stated that as a matter of fact the total amount distributed to all consumers in the production of goods is not as great as the necessary sales price of the goods. Wage-earners, profit

¹W. T. Foster and Waddill Catchings, *Profits*, published by Pollak Foundation, 1925.

makers, receivers of rent, interest, etc., do not all together receive enough to enable them as consumers to pay for these goods the price which must be paid if as producers they are to continue to make use of the facilities of production.

This is a far-reaching statement, and if the facts justify it, we have heretofore not gone deep into our subject. No wonder we could not understand why we could not increase real wages by increasing the total output of goods and why little could be accomplished by our efforts to increase labor's share in what is now produced.

Furthermore, if the statement is a statement of fact, and we arrive at an understanding of this vital feature of our money and profit economy, we may reasonably hope to learn how to increase real wages by increasing the output of goods. Likewise if we have our facilities of production running smoothly and can relieve business of the fear of general overproduction and labor of the fear of unemployment, we can discuss intelligently and effectively how we may reduce the relative amount going to profit makers, and increase the share of wage-earners.

Therefore, every effort may well be directed toward discovering if the facts warrant this statement that as consumers we do not receive enough money to buy the goods which as producers we are able and willing to produce: in fact those goods which at times we actually do produce, but which now we can sell only by refraining from using some of our facilities of production.

The facts are easily ascertainable. Most of them are at your hand. Careful study has resulted in this far-reaching statement—a statement which concerns all of us in our daily lives. If the statement is not justified it should be disposed of and dismissed. If it is true, it should become the center of our discussion, and may well prove the foundation upon which we can build the solution of this wage problem and of other problems which affect the daily happiness of tens of millions of men, women, and children.

W. A. BERRIDGE.—In the following remarks attention is called to certain facts which are often underemphasized and in some cases quite overlooked in discussions of the relationship between industrial wages and the business cycle. Much of the literature on the subject shows a gross maldistribution of emphasis among these facts, even where all of them are recognized.

I. *Wages, in the sense of the total volume of money income flowing into the hands of factory workers, are enormously responsive to ups and downs in the business cycle.* The extent of that response is greatly understated by those who follow the prevalent practice of quoting the annual average income in a good year and in an adjacent year of depression. The index of incomes constructed by Mr. Woodlief Thomas, with the aid of a method devised for the Federal Reserve Board by the present writer, shows pretty clearly what the actual monthly changes have been since the Armistice.

The low points of 1921-1922 occurred in July, 1921, and January, 1922,

when this income index stood at 80 and 78 per cent, respectively, of the 1919-1922 average. Contrast this with the high of 132 per cent in March and in June of 1920. Contrast also the low of 1924 (July, 93 per cent) with the high of 1923 (May-June, 118 per cent). In each of these two cases the span between high and low is much too wide to be ignored. And it is here shown to be greater than would have been indicated by annual averages for the several years. Within each of those years the business cycle caused such violent changes in the course of the money income index that the annual averages would have shown a much lower maximum and a much higher minimum, thereby arbitrarily misleading us as to the real severity of the problem being considered at this round table.

II. *In general, "real" or "commodity" incomes of factory workers fluctuate much less violently than do their money incomes.* In most (but not all) business cycles, living costs have shown a considerable, even though laggard, response to the state of general economic conditions. It is true that since 1922 advances and declines in the cost of living have been slight and sluggish in comparison with those of 1919, 1920, and 1921. But even though these changes during the last half of the post-bellum period have been less pronounced than usual, whereas those during the first half were more pronounced, it is true, in general, that cycles of living costs cannot be ignored. It is usually necessary to "deflate" or adjust the index of money incomes with the aid of living-cost data before we can effectively observe the effect of the business cycles upon the buying power of labor.

The only method yet at our disposal for such adjustment, in a manner which will yield even approximately satisfactory results, is to divide the money income index each month by an index of the money-cost of living in that month. Having done this, we find that the true shrinkage in buying power between the high of 1920 and the low of 1922 was much smaller than that already noted from the money-income index. The maximum shown by this method fell in March, 1920 (117 per cent of the 1919-1922 average), the minimum in July, 1921 (83). In other words, the shrinkage in real buying power was only 34 points, as compared with 54 points in money income (132 down to 78). But the industrial recession of 1923-1924 led to a shrinkage of 27 points in real income (129 down to 102), which is almost the same as that in money incomes (118 down to 93).

III. *Fluctuations in factory workers' incomes are an important factor in cycles of retail trade, and indirectly of wholesale trade and industrial activity itself.* On a priori grounds, so large a group of consumers as the factory population, numbering nearly ten million persons, earning about ten billion dollars, and supporting perhaps thirty-five million dependents, must influence trade in many lines of consumers' goods. When their buying operations increase in response to the enlarged incomes prevailing during busy times, or decrease during depressions, tradesmen will obviously be affected. It is almost equally clear that these fluctuations must spread to include the wholesale trades and beyond them the very industries which employ the factory workers and supply the trades with goods.

It is possible to go a step further, and demonstrate from statistical evidence that a close relationship prevails between the indexes of money and real incomes on the one hand and the available indexes of Persons, showing the money volume and physical volume of trade. Few realize the ex-

tent to which this statistical relationship¹ verifies the priori case on the point now in question. But a rapidly growing number of business and industrial leaders are coming to sense the situation. Through trade associations they are likely to act collectively to mitigate the problem in various ways which are open to them. And individual entrepreneurs are finding at their disposal numerous devices for promoting stability by purely managerial action. There is little doubt that production and employment, cyclical as well as seasonal, can be more nearly stabilized than has generally been considered possible. More widespread adoption of stabilization devices by individual employers is being advocated and actively supported by several powerful organizations, governmental and private.

IV. *No measure for applying a "sliding scale" to wage rates should be formulated until better evidence is available.* In this country, as in practically all others, altogether too little is known of the past and present relationship between wage rates in different industries, labor markets, occupational groups, skill groups, and so on, to afford a sound basis for actively controlling their future relationships. Bowley and Hilton have shown that in England it is practicable to construct index numbers of the wage rate. Why then is it not possible in this country? It is anomalous that among our numerous American indexes there is none showing the changes even in general labor costs. We need not only a more thoroughgoing economic analysis of the probable long-run effects of a sliding-scale regime, but also publicly available composite data on the cost of labor in various steps of manufacture and on the changing profit margin, both classified by industry.

Although, in the judgment of the writer, the sliding scale offers much promise as a stabilizer of business and welfare, no true friend of stabilization will advocate its adoption yet. Greater activity on the part of trade associations and official bureaus of labor statistics along statistical, fact-finding lines is essential before advocating the installation of such a scale, or even estimating the extent to which it would probably be found effective.

ECONOMIC PROBLEMS INVOLVED IN THE PAYMENT OF INTERNATIONAL DEBTS

H. G. MOULTON, *Chairman*

The chairman regards it as unnecessary to make any extended remarks upon the subject under discussion, but a few general comments are perhaps desirable. It is a matter of genuine regret that I am forced first of all to correct once more a misstatement of my position on the whole problem of an export surplus. Mr. Angell's statement of my position, as given in his paper, is so inaccurate and inadequate as to be quite inexplicable, particularly in view of the quotations from "Germany's Capacity to Pay" and "The Reparation Plan" which I reproduced in my article in the December issue of the *American Economic Review*.

The really interesting feature of this discussion—formal and informal—is the progress that has been made during the last two or three years toward an understanding of the complexity of the problem. For example, while Mr. Viner begins his discussion by emphasizing the great signifi-

¹For a brief treatment see Berridge, Winslow, and Flinn, *Purchasing Power of the Consumer* (Shaw, 1924), p. 62.

cance of the classical theory of international payments, when he gets to the end of his paper he no longer concludes that depreciating exchanges will necessarily result in developing automatically an export surplus of large dimensions. He now concedes that the theory may sometimes be of limited applicability. He still insists, however, that some of us have not given adequate attention to the classical theory of international payments and that this has led us to erroneous conclusions. Now the group of students to which Mr. Viner belongs have heretofore not only given adequate attention to the theory, but they have given it exclusive attention, ignoring almost entirely the other controlling factors in the situation. It is such single-minded devotion to the doctrine that has led this group of writers to contend that the measure of capacity to pay is the full excess of production over necessary consumption, and that once the process of payments is begun by depreciating the exchanges the export surplus problem will take care of itself.¹ According to this doctrine it is merely necessary to fix a sum less than the excess of production over consumption and then set in motion the machinery for developing the export surplus by beginning the process of making payments through selling exchange.

Now this was precisely the principle that was followed with Germany prior to the establishment of the Dawes Plan. In May, 1921, a schedule of annual payments to be required from Germany was definitely fixed at the rate of 2 billion gold marks a year, plus 26 per cent of exports, making the total at the time a little more than 3 billion marks. For the first half year, beginning July 1, 1921, the 26 per cent provision was, however, not applicable, so that only 1 billion gold marks was involved. The full sums required were considerably less than the total excess of German production over consumption. What happened?

A payment of 150 millions was required in July 1921, and one of 850 millions in September. These payments were met. The German exchange rates moved as follows:

January, 1920	1.69 cents
January, 1921	1.60 "
May, 1921	1.63 "
July, 1921	1.30 "
October, 1921 .....	.68 "
January, 1922 .....	.52 "
July, 1922 .....	.20 "
December, 1922 .....	.01 "

During 1922 payments were not up to schedule and the sums actually transferred were considerably less than those required under the Dawes Plan. Thus for the whole period 1921-1922 the sums transferred were considerably less than those that will eventually be required under the Dawes Plan. During this period no export surplus developed, but on the other hand the pressure for payments resulted in a complete disorganization of the entire financial and economic system of Germany. This occurred, it should be noted, even before the occupation of the Ruhr, which did not begin until January, 1923. While it is true that there were other factors in the German situation, such as an unbalanced budget, that con-

¹An exception must be made for Professor Taussig who has all along been very guarded in his statements on the subject.

tributed to the exchange and currency demoralization, all European students are agreed that the pressure for foreign payments, when there was no export surplus available, was a primary cause of the collapse that ensued. It is, moreover, the result of German, Austrian, Hungarian and other experience that has led such sound economic students as Salter, Rist, Stamp, and others to conclude that stability of the exchanges is of paramount importance.

It is obviously true that a depreciation of exchanges will have a tendency to stimulate exports relatively to imports—for a time. This tendency I have never denied, nor even questioned. What I have denied is that this is either the end of the story or the primary consideration involved. Depreciating exchanges will stimulate exports only so long as there is a lag in internal price adjustments; and post-war European experience, as Mr. Pasvolsky's paper shows, indicates that when there is heavy pressure for foreign payments the period of stimulation does not last long. Whether this stimulus—while it operates—will lead to a large excess of exports depends upon a complex of factors, varying in countries of differing economic organization.

The fundamental error of those who have set this theory up as adequate to any and all occasions is in assuming that other things remain equal while the stimulus to exports is occurring. The truth of the matter is that the trade tendency is by no means the only tendency that is set in operation by means of exchange depreciation. The exchanges, the currency, and the budget, as it has been pointed out in the Institute's studies of Germany, Russia, and France, are closely interrelated phenomena. If pressure for external payments continues to be exerted when there is no favorable balance of accounts, the other tendencies shortly engulf the trade tendency and lead to the disorganization of the entire financial and economic system of the country. If we start with a nation on a gold standard, large payments—in the absence of a favorable balance of trade and services—will quickly result in moderate depreciation of the exchange. Continued pressure for payments thereafter will quickly convert moderate depreciation into violent depreciation. Violent depreciation shortly leads to general financial collapse. This has been the cycle of events in numerous European countries since the war.

Those who give "adequate attention" to the classical theory also tend to ignore differences between present war debts problem and those arising in normal times as a result of ordinary commercial operations. The accumulation of pre-war commercial debts was accompanied by an expansion of the producing capacity of the borrowing country, but the present reparation obligations and war debts did not accrue from productive operations. On the contrary, the creation of these debts was accompanied by a great reduction in the economic power of the borrowing nations. Those who base present expectations upon pre-war analogies of commercial debts completely ignore this fact, as well as the quantitative issues involved. The case of the French indemnity of 1871 proves comparatively little in this connection, since approximately 90 per cent of the total payments were effected by the sacrifice of French foreign investments.¹

¹For a full discussion of the Indemnity of 1871 see *Germany's Capacity to Pay*, Chapter VII.

JACOB VINER.—The topic assigned to me is the mechanism of transfer of international debt payments, and I will make it my special concern to bring out the significance for this problem of the classical theory of the mechanism of international payments. In so far as the transfer mechanism is concerned, there is no difference, if the payments arise out of what are either temporarily or permanently one-sided transactions, whether they be made as reparations, as repayments of previous borrowings, or in making new investments abroad. Some discussions of reparations and inter-allied debts have suffered conspicuously from inadequate use or inadequate command of the classical theory of the mechanism of international trade, but its possibilities for this problem have been fully and expertly exploited by others. Under the circumstances, therefore, my main task must be not to present novel doctrines, but to discuss the significance of the authoritative doctrine for the problem before us.

The classical explanations of the mechanism of adjustment of international trade balances to disturbing one-sided factors have been described—and condemned—as maintaining that the process of adjustment is “automatic.” The description is accurate, but there are two types of classical theory of the mechanism of international payments for which “automatic” has widely divergent meaning. Ricardo presented a version of the theory according to which the process of adjustment of international balances to disturbing factors, *other than those arising out of a depreciating currency*, was automatic in the strictest sense, and was effected without mechanism, without gold movements, without prior variations in the exchange rates, without changes in relative price levels. According to Ricardo when a new disturbing factor such as the initiation of debt payments requires an adjustment of the trade balance, this adjustment is automatically, immediately, and accurately brought about by a shift in the relative demands of the two countries for each other’s products. The dominant theory since Ricardo’s day, though often erroneously attributed to him, maintains on the contrary that there is a complex mechanism of adjustment involving, under the gold standard, fluctuations in exchange rates, gold movements, and changes in relative price levels. It appears to have been originated by Henry Thornton in 1802, but John Stuart Mill, and later Taussig, have been mainly responsible for its elaboration and for its wide acceptance among trained economists. Followers of the Ricardian version have been few: Bastable, hesitatingly; Hollander, with emendations; J. S. Nicholson; and perhaps one or two others. The Thornton-Mill-Taussig version has its critics, but if the Ricardian theory be excepted, there is no rival positive theory that I know of. The Thornton version is also a theory of automatic adjustment, but in a different sense. According to this theory the adjustment is not immediate and frictionless, and is automatic only in the sense that it results from the unorganized actions of individuals under the stimulus of self-interest and without the need of governmental direction or manipulation. The theory does not necessarily imply perfect smoothness of operation of the process, though it may be true that here as elsewhere in classical economics, inadequate attention was given to the causes

or the importance of friction, or to the possibilities of improvement of the process through governmental manipulation thereof. It should be noted, however, that the Thornton-Mill theory is primarily an explanation of the complicated process by which the inertia and friction disregarded by Ricardo are overcome.

Under the gold standard, the Thornton-Mill theory would maintain that the process of transfer of, let us say, British debt payments to the United States, would be as follows: an initial purchase of exchange on the United States by the British Government which, in the presumed absence of offsetting demand for London exchange by Americans, would force exchange on America above mint parity and, if the purchase was substantial, would raise it to the British gold export point. Gold would move to the United States, British prices would fall, American prices would rise. British exports to the United States would rise relative to British imports from the United States, and a continuing British export balance would be established which would provide British credits in the United States against which to charge the annual British debits on war debt account. Gold movements from Great Britain to the United States and the shift in price levels would persist until there had developed an annual British export-surplus equal to the annual debt charge, when, subject to certain minor qualifications which need not here be developed, gold movements in either direction would cease and prices in the two countries would be stabilized at their new relative levels during the continuance of the debt payments.

In recent years, and as the result of inductive investigations, the theory has been somewhat modified in detail to take account of the development of deposit banking. It is now agreed that the rise in prices in the creditor country will be immediately due to a rise in bank deposits rather than to an increase in gold, but there is at least the semblance of disagreement among theorists as to whether the increase in deposits is the result of the import of gold or is prior to it and is what makes the gold import necessary. The latter is certainly conceivable. If England is to pay the United States £10,000,000 in London on February 1, the American government may on January 1 borrow \$50,000,000 from American banks in the form of a created deposit in anticipation of its repayment from the English £10,000,000 when received. If it were a transaction between private individuals, the American might discount at his bank on January 1, a draft on an English debtor which would be due in London only on February 1. In either case deposits in the United States would rise prior to the import of gold, and the gold import would support an increase in deposits and prices which had already occurred rather than initiate the increase. I doubt, however, whether such procedure is the general rule or even frequent, and I am not impressed by the degree of success of the attempt in the recent study of the National Industrial Conference Board¹ to squeeze an inductive verification of this theory, with its minimization

¹"The Inter-Ally Debts and the United States," 1925, ch. V.

of the role played by gold movements, out of the few statistical investigations of the general problem which have been made. I speak in ignorance of the facts, which may explain my reluctance to accept this hypothesis. But it is my impression that in general the proceeds of large borrowings abroad, whether public or private, become available more rapidly than provision has been made for their utilization, with the consequence that instead of their being drawn upon in advance and thus swelling the created deposits of the borrowing country, they influence deposits only as they become actually available as gold or sight drafts on foreign banks and therefore as cash deposits. Under either hypothesis, however, the gold imports are necessary for the continued maintenance of the new price level.

Recent attempts to stress the significance of variations in the exchanges under the gold standard as an important part of the mechanism of adjustment of trade balances to disturbing factors can readily be disposed of when the amounts to be transferred are large by pointing to the high degree of improbability that exchange variations within the narrow limits set by the gold points could cause substantial shifts in the currents of trade. That a debtor country can make final payments only through an excess of its exports over its imports is a commonplace of the theory of international trade, and the so-called legal payment, as distinguished from the economic or real payment, is merely a mode of temporarily postponing payment which cannot be of much avail when the debit obligations already extend almost to eternity. It is probably true that the payments of the Allied debts to the United States must in the main be effected by commodity export balances, but I think that in recent discussions the possibilities of substantial payments in the form of services have been unduly minimized. The inductive investigations of past experiences, whose bearing on the present problem it is easy to exaggerate, dealt in the main with the mechanism of transfer of British capital to countries with relatively small purchasing power for foreign services and especially luxury services. As between the United States and England at the present time, however, a substantial shift in relative price levels could conceivably bring about a heavy decline in American exports of services, especially shipping, and a substantial increase in the sales of British services, especially shipping, tourist, and insurance, to Americans. I can see no reason for assurance, either on a priori reasoning or on the strength of the inductive studies of past experiences which have been made, that England will not make her payments in great degree through exports of services, and this applies also to France and to Italy, though perhaps in less degree. This is likely to be fostered by the fact that against the import of services there is in the United States and in other countries no prohibitive tariff.

The transfer mechanism cannot be depended upon under all circumstances to accomplish the payments without a breakdown. Foreign tariffs lower the average price at which a given quantity of the debtor country's goods can be sold, and therefore increase the physical quantity of exports

necessary to liquidate a given additional monetary obligation. If a country has a restricted range of products and if the foreign demand for its major export products is inelastic, this also operates to increase the physical volume of exports necessary to liquidate a given monetary obligation. Some degree of escape from these obstacles to payment will ordinarily be possible through a restriction in imports, but if to these adverse factors there be added an inelastic demand on its part for foreign products, the debtor country's ability to make payments is further restricted, and an attempt to meet its obligations on a large scale is liable to result in a serious drain on its gold reserves, a marked fall in its price level, and a financial crisis. The standard expositions of the classical theory always take for granted that the payments to be made are not great enough, or the presence of these unfavorable factors not marked enough, seriously to impede the smooth working of the normal process of transfer, but the present situation, especially in connection with the German reparations payments, may possibly call for payments greater than this mechanism can handle. In any case, the full execution of the steps necessary in order that an adequate export surplus be developed, and especially the shift in price levels and the response of production and trade to the changes in price levels, requires considerable time. Where the payments to be made are substantial in amount, it is urgent, therefore, that the payments should be gradually and slowly scaled up to the maximum annual quota, in order that there may be adequate time for the processes of adjustment to work themselves out.

If the payments are to be made by governments, it is particularly urgent that the schedule of payments be flexible. In private transactions, when conditions are temporarily such as to make payments exceptionally difficult, the debtor with good credit can ordinarily readily secure consent to postponement of his payments. With governments the situation is somewhat different. Their obligations are generally more rigid as to due date, and the securing of consent to extension of time for payment is likely to be a matter of tedious and difficult negotiation with adverse publicity and serious damage to the credit and prestige of the debtor government. In any program of intergovernmental debt payments it is important, therefore, that there be potential elasticity in the schedule of payments. On the other hand if payments are really desired by the creditor countries, this elasticity must not take the extreme form, which it does in the so-called Dawes Plan, of stopping the process of payment the moment the phenomena necessarily accompanying it (namely, a fall in the exchange rate of the debtor country below mint parity and a loss of gold) make their appearance.

The classical theory implicitly takes for granted the possession by the debtor of basic capacity to pay, and does not expressly deal with this phase of the problem of international payments. It is obvious that even the most perfect of mechanisms will not transfer what is not there to be transferred. In the case of government obligations there may be incapacity to pay on the part of the government even though there is ample capacity

to pay on the part of the community as a whole. The more moderate the amounts to be paid in relation to the budget of the government and to the wealth of the debtor country, and the more elastic the schedule of time-payments, the less likely are the internal obstacles to payment to interfere with the successful operation of the transfer mechanism. The external and internal phases of the problem of international payments are parts of a closely-knit whole, and a full treatment of the problem must consider the reactions upon each other of the two phases.

It has been assumed so far that the gold standard is operative in both debtor and creditor countries. Under an inconvertible paper standard, there are important differences in mechanism. Variations in the exchange rates must now do all the work which under the gold standard is done by such variations plus gold movements and changes in price levels. The absence under the paper standard of limits to the variations in the exchanges gives to these variations a greater potentiality in affecting the course of trade than they have under the gold standard, and makes possible, therefore, at least as smooth a functioning of the transfer mechanism as under the gold standard. In the authoritative expositions of the mechanism of international payments under the paper standard much stress—in my opinion, overmuch stress—is put on the movements of internal price levels in the countries concerned. Under the paper standard price levels are too much subject to influence by factors extraneous to the international payments to permit assurance that they will be appreciably under the control of such payments, and in any case movements in price levels are not necessary under the paper standard for the effective operation of the transfer mechanism. All that is necessary, for instance, if France with her paper franc is to make payments to the United States (it being assumed in the usual manner that there are no internal obstacles to payment), is that payments be initiated by France through continuing purchase of American exchange at whatever rates in French currency at which it may be available, transfer to the United States of these purchases, and a consequent rise in American dollar exchange in terms of francs such as to make American goods dearer to Frenchmen relative to the prices at which French goods can be bought, and French goods cheaper to Americans relative to the prices at which American goods can be purchased, than they were in each case prior to the rise in American exchange. Under the paper standard, unlike the gold standard, the process of transfer of payments from France to the United States may be operating effectively regardless of how, or in what direction, price levels in the two countries are moving relative to each other.

It is important, however, to distinguish between the several types of exchange depreciation. There is often a serious failure to distinguish between (a) a depreciation, say of French exchange, which is the consequence of French currency inflation and the resultant impairment of its internal purchasing power, and (b) a depreciation of French exchange which is due to an adverse balance of payments resulting from the initiation of debt payment, and is over and above any depreciation resulting from a decline in

internal purchasing power. It is only the latter type of depreciation which is an essential phase of the mechanism of international payments under the paper standard and which contributes to the effectiveness of that mechanism. Citations of the failure of Germany after the Peace Treaty to develop an export surplus in spite of the depreciation of German exchange as casting doubt on the validity of the classical theory or on the effectiveness of the mechanism it describes are therefore beside the point if the depreciation of the German exchange was due primarily to the German currency situation and not to German attempts to initiate reparations payments. Three things are necessary, if payments in kind are disregarded, for the genuine transfer of payments under the paper standard. First, the liquidation of any immediate debit balance of international obligations on other than reparations account; second, the initiation of reparations payments through exchange of the debtor country's currency for foreign currency, and the handing over of the proceeds to the foreign creditor; and third, a resulting depreciation of exchange on the debtor country over and above that which is due to internal inflation. It does not appear that all of these steps had been accomplished by Germany during the period when its failure to pay reparations was heralded as a disproof of the classical theory. In this connection it may also be pointed out that the notion that the subsidizing of exports, whether by dumping, bounties, preferential railroad rates, or whatever method, is according to the classical theory conducive to the development of an export surplus is erroneous. This is a mercantilistic notion, and one of the original objects of the classical theory was to demonstrate its fallaciousness. Subsidizing exports stimulates exports, it is true, but it also stimulates imports in like degree. The only methods according to the classical theory of developing an export surplus are to lend, give away, or destroy the proceeds from export sales, or to redeem outstanding foreign obligations with them. The only way to develop an export surplus out of which reparations or debts can be paid, is to start paying the reparations or debts. The first payment must precede the first export surplus.

The confusion between the two basic types of exchange—depreciation has unfortunately been added to by the purchasing parity theory of the exchanges and by the discovery of the phenomenon of so-called "exchange-dumping." The purchasing parity theory as presented originally by Cassel completely overlooked both that type of depreciation which is an essential part of the mechanism of international payments and also the phenomenon which gives rise to exchange dumping, and explained variations in the rate of exchange between two currencies as being due wholly to and accurately measuring the variations in their relative internal purchasing powers. As Cassel later modified the theory to take into account these and other overlooked factors, nothing novel remains of it except its name, but that is still doing damage to clarity of thought. Exchange dumping, on the other hand, is the name which has somewhat inappropriately been applied to the stimulus to exports which results from the apparently well-authenticated fact that when a currency is depreciating

owing to progressive inflation, the rate of depreciation is more rapid in its external than in its internal purchasing-power. The classical economists described this—or a closely similar—phenomenon, in connection with the method whereby the products of gold mines were distributed through the world, but they never identified it with the type of depreciation in the exchange value of a currency which is a phase of their mechanism of international payments. In discussing international payments, such as loans or subsidies, they assumed that the currency was not being tampered with, and thus excluded the phenomenon of exchange dumping. It may be pointed out that exchange-dumping is a temporary phenomenon, disappearing when expansion of the currency ceases, whereas the stimulus to exports from the relative depreciation of the exchange of a debtor country is a continuing phenomenon, lasting as long as the process of debt payment continues, and irrespective of whether its price level is rising, is falling, or is stationary.

The classical theory of the mechanism of international trade has withstood surprisingly well the searching examination to which it has been subjected in recent years, and its main framework, if not all of its details, stands intact. To some the theory seems to be too closely bound up with the quantity theory of money, but all that it assumes under the gold standard is that price levels tend to move in the same direction, though not necessarily in the same degree, as supplies of gold, so that a transfer of gold between two countries will tend to result in a relative shift in prices, corresponding in direction to the direction of the gold movement. Until the theory is demonstrated to be unsound, it must be dealt with in any comprehensive treatment of the problem of international payments.

ALEXANDER D. NOYES.—There is not much that I can add, from the purely economic viewpoint, to the discussion of this question which we have already heard. I wish, however, to refer briefly to three phases of the problem of European indebtedness, European trade revival, and European payments, in the light of practical experience rather than economic theory. If the view taken of this question by practical bankers and investors in this country, as exemplified in their own credit operations, were to be summed up, it would present itself in three underlying assumptions, all of which have found abundant justification in the world's previous financial and industrial history. They are as follows:

First, the solution of a seemingly insoluble economic problem is almost always effected in different ways from what had been anticipated.

Second, the expansion of world trade after a great war, including the exports and imports both of belligerents and non-belligerents, has always surpassed all previous experience, and has always pursued in some respects new and unexpected lines.

Third, the power of international capital to accomplish the seemingly impossible in economic readjustment has repeatedly been demonstrated in financial history.

It ought never to be overlooked, when doubt and perplexity arise over the possibility of such financial and industrial recovery as should put the recent European belligerents in a position to meet their enormous war liabilities, that the similar problem which confronted the United States at the outbreak of the war in 1914 was even more formidable. What subsequently happened would have been pronounced economically impossible by nine out of ten among experienced business men and trained economists. That our country, then so greatly indebted to Europe that we were forced to close our markets against the return of our own securities during the first four months of war, could have repurchased in the course of the next four years \$2,000,000,000 of American securities and could at the same time have subscribed to upwards of \$1,000,000,000 in new European bonds, would in 1914 have been deemed incredible. It might indeed have been demonstrated at the time that the thing could not take place. When, in addition to this, our war-time experience showed that the nation, instead of being exhausted by that prodigious financial effort, was to be left the richest country in the world, holding in its bank reserves one-half of the whole world's gold instead of one-quarter as in 1914, the all but paradoxical character of the achievement must be evident.

It is entirely true that the unexampled war-time demand for our products by foreign countries played an essential part in these remarkable results. But even so, the productive power which made possible the meeting of such demands was scarcely imagined in 1914, and we may have similar surprises ahead of us in the production of Europe. It is in the light of this achievement of our own that the problems which confront both the United States and the lately belligerent European states must be considered. The admitted crux of the problem has all along been the fact that, whereas England after 1815, when that country had become the creditor nation of the world, was in need of raw materials and food which it imported in unprecedented quantity while developing its manufactured exports, the United States after 1918 was itself the chief purveyor of such raw materials and food in the export market. It seemed, therefore, as if our enormous export balance in foreign trade was bound to continue indefinitely. It appeared impossible to discover how the European nations could pay their war indebtedness to us in merchandise.

Yet what has happened between 1918 and 1926 has been quite as contrary to our own previous experience as were the events of the war itself. Our purchase of new European securities, our direct investment in foreign industry, our loans on the European open money market, have not only marked the complete reversal of the pre-war situation, but have reached proportions equal to the development of our international credit balance. The larger possibilities involved in this movement were shown even in 1919, when, notwithstanding the greatest surplus of merchandise exports on the country's record, the United States was a larger exporter of gold. It was equally shown by the fact that, according to the computations of the Department of Commerce, the entire body of transactions between the United States and foreign countries during 1923, notwithstanding \$388,-

000,000 surplus of merchandise exports, left the United States with a net debit of \$116,000,000 for the twelve months and that in 1924, although the merchandise export balance had risen to \$970,000,000, the net credit on all accounts was only \$4,000,000.

What future possibilities exist in the way of reversion by the United States to an import-surplus rather than an export-surplus country, may be judged even from current foreign trade returns. The year 1925 was a period in which, for particular and unusual reasons, our export of wheat and cotton reached exceptionally high values, bringing our total export trade for the calendar year \$2,423,000,000 above 1913. Yet our imports in 1925 were \$2,432,000,000 greater than those of 1913, and our merchandise export surplus, therefore, actually less than that of the pre-war year.

JAMES W. ANGELL.—There are two questions about which I wish to speak. One is the relation of present and future American foreign loans to our receipt of debt payments from abroad, on both private and public accounts. The other, for which a few words must suffice, is the prospective situation of the European countries, especially Germany. I shall take up the two questions in order.

Consider first the volume of payments of all sorts due to the United States. They are of two principal types: those accruing to the government, and those due to private investors. The receipts arising from extant settlements of debts due the American government amounted in 1924 to \$182,500,000, including payments on both interest and principal accounts. For the present year they will be a little larger, and beginning in 1927 will be augmented by nearly \$24,000,000 a year from receipts under the Dawes Plan.¹ From 1927 until 1933 they will thus amount to over \$200,000,000 a year at the least, and will then increase to about \$280,000,000² as higher rates of interest are applied. These sums cover payments from all important debtors of the United States government except France.³ What the final arrangement with France will be is of course problematical. The maximum French offer in October called for payments working up to \$100,000,000 annually at the end of twelve years. Application of the same terms as those made with England would instead yield a maximum of \$160,000,000, but the American commissioners have offered to accept \$40,000,000 a year for the first five years. Suppose that an arrangement is concluded on this basis, with the rate of payment then increasing by degrees to \$100,000,000. The American government would then be receiving, altogether, roughly \$250,000,000 a year for the next five years, and thereafter amounts which would increase to a figure in excess of \$375,000,000 annually.

¹\$10,750,000 a year for war damages, and \$13,050,000 a year for costs of the army of occupation.

²After 1945, \$272,000,000. The second group of charges on Germany runs for a limited period only.

³And the debt from Russia, presumably worthless. It amounted at the of 1923 to \$241,000,000.

Large as this sum is, however, the amount due to American private investors is even larger. In 1924 it came to \$441,000,000, and for the present year will not be far from \$500,000,000. As long as the foreign investments of the United States continue to grow, it will of course increase. Against it, however, is to be set the sums due from the United States as interest and profits and amortization payments on foreign investment in this country. In 1924 that item amounted to \$150,000,000, and will be distinctly larger in the present year. Our *net* receipts, of interest and profits payments in the private investment account, were therefore only \$291,000,000 in 1924, and will not be much over \$325,000,000 for 1925. In the next few years the item will probably not vary much from the latter figure. Taken together with the payments due the government, this means that the American people as a whole will have received substantially \$500,000,000 from foreign countries in 1925, and will receive close to \$575,000,000 a year for the next five years.

Bearing these last two figures in mind, turn now to the other side of the account, the flotation of foreign loans in this country, and other exports of American capital. In 1924 the export of capital arising from new foreign loans floated here, exclusive of refunding, amounted to \$795,000,000, and the purchase of other securities to \$114,000,000—say a little over \$900,000,000 all told.¹ For the present year the nominal value of new loans floated will be close to \$1,100,000,000,² and the sum actually transferred something under \$1,000,000,000. No estimates are yet available for capital exports taking other forms, but to judge from previous years the figure will be between \$100,000,000 and \$125,000,000 at the least, thus making the gross actual exportation of capital for the year about \$1,100,000,000.³ Against this, however, is to be set the large sales of American securities to foreigners. In the last three years these sales have averaged over \$300,000,000 a year.

If we now total up all of these various figures and estimates bearing on the movement of capital to and from the United States, we come out surprisingly near a balance. In 1924 the *net* export of capital, so far as the figures are accurate, was only \$63,000,000; and in the previous year there was a large *net import*, of \$507,000,000. For 1925 complete figures are not yet available, but it seems unlikely that the net export will exceed \$200,000,000, or at most \$225,000,000.⁴

¹These figures are smaller than the total par value of the issues, because many issues were floated below par and because of commissions. The average deduction in 1924 works out around 10 per cent.

²Based on the records, to December 18, 1925, kept by the Federal Reserve Bank of New York.

³These estimates also entirely omit changes in current bankers' here and abroad, and in other short-time balances. For them there are absolutely no comprehensive data.

⁴The official Department of Commerce figures will be available shortly after these observations appear in print, so that it is beside the point to make detailed com-

These data have a twofold significance. In the first place, they make it clear that at the present time the very large annual volume of debt payments to the United States, on private and governmental accounts, is being more than offset by the investment of new American capital abroad. In consequence, the net effects of the debt payments on general economic conditions within the United States are as yet almost negligible, and on fiscal conditions not very marked. In the second place, however, there is every prospect that this situation will change in the near future. The longer the present extraordinary foreign investment boom in the United States continues, the larger will the return flow of interest and profits and amortization payments become. Moreover, after 1932 the volume of payments made to the American government by foreign governments will increase very heavily relative to its present size, probably by over \$100,000,000 a year at the least. On the other hand, it is extremely unlikely that the flood of new foreign investment will long maintain its present volume. Nearly half of the new investment of the last two years has been made in Europe.¹ It requires no demonstration that this latter situation—the flow of capital from the United States to Europe on a large scale—is abnormal. It is the product of the economic devastation wrought by the war and post-war mutations. To provide a basis for discussion, however, the following estimates are suggested for 1925, in millions of dollars:

	Credit	Debit
To U. S. government	188	.....
To U. S. private investors	500	.....
To foreign investors	.....	150
Export of new capital from U. S.	.....	1,000-1,100
Sale of U. S. securities abroad	325	.....
Totals	1,013	1,150-1,250

¹The following table indicates the position of American investments abroad in 1924 and 1925, in millions of dollars. To make them roughly comparable the figures given for annual new investments are those including refunding loans, since the data thus far available for 1925 do not distinguish between new and refunding operations. The figures for total investments outstanding in 1924 presumably include all forms of investment, but those for 1925 represent only the addition of investment in new securities, since estimates on other forms are not yet available. The Table therefore cannot stand close scrutiny, but does at least give some idea of the situation.

Region	Annual new investment						Total invest- ments out- stan ding	
	Government		Private		Total			
	1924	1925	1924	1925	1924	1925	1924	1925
Europe	542	411	40	219	582	630	1,900	2,530
Canada	210	150	46	110	256	260	2,460	2,720
Latin America	159	154	48	69	207	223	4,040	4,263
Asia and Oceania	148	81	16	82	164	163	690	853
Totals	1,059	796	150	480	1,209	1,276	9,090	10,366

The data for 1924 are taken from *U. S. Department of Commerce Trade Information Bulletin N. 340*. Estimates for 1925 taken from the records of the Federal Reserve Bank of New York; complete through Dec. 18, 1925.

collapse. Before long, probably within two or three years, the more pressing needs of Europe for new capital will have been met. American investment in European securities and enterprises will then diminish rapidly, and in all likelihood will become unimportant. The *net* movement of capital, taking interest and profits and new investment, private and governmental operations, all together, will then turn increasingly *towards* the United States rather than away from it. At a guess, this change will become definitive within five years. And, after a somewhat greater interval,¹ it will carry the trade balance with it; we shall have a long period of enduring and growing import excesses.

The future of our new investments in other parts of the world than Europe is not equally clear. To the best of my knowledge, however, there is no good reason for thinking that the flow of capital here will decline to anything like the same extent as the flow to Europe. The proportion of our new investments made in Europe, relative to those elsewhere, has been far larger in the last two years than the proportion the European investment as a whole makes to our total outstanding foreign investments; but the proportion of new investments made in other regions has kept fairly constant.² This would seem to argue that the latter group of investments, especially those in Canada and Latin America, is being made at a relatively stable rate; and that it will not decline severely, on the average. Indeed, there is some ground for thinking that the United States will become a sort of *entrepôt* for capital in future years, receiving considerable amounts from Europe and distributing much larger sums to newer countries.

To return now to the central theme of the discussion in this round table, it is evident that so far as the United States is concerned the payment of international debts will give rise, in the immediate future, to no general economic problems whatsoever that are of major importance. Because of the enormous volume of new foreign investment, our international credits and debits in the capital account so nearly offset one another that for at least several years the net balances one way or the other will be nearly negligible. And although the net movement of capital will eventually turn definitely inward, its size for many years to come will be too small to exert much effect. Even were it to reach the sum of \$200,000,000 annually, which is most unlikely for at least eight or ten years, this figure is barely 1 per cent of our present volume of bank deposits—too small to be significant for the country as a whole.

With the exception of Germany, this is partly true of the European countries, too, although by no means to the same extent. As the settlement of the intergovernmental debts proceeds, most of the European countries will find that the foreign payments and receipts of their governments show either a considerable credit surplus, or at least nearly a balance. And in most of them the payment of interest and profits to foreign coun-

¹A greater interval, because we have a large debit balance of invisible items on other than capital account, which will keep the commodity balance "favorable" for a time. This non-capital debit balance is now running around \$800,000,000 a year.

²See the table in footnote 1 on p. 101.

tries on private account is at present being more than offset by new investments received from abroad. But the crux of the situation in Europe lies in German reparations. If the expected annuities fail to be realized, both the domestic and the international financial position of the Allied countries will be thrown into severe confusion. Can Germany pay?

On this long-debated question there are two distinct schools of thought, and several subdivisions within each. At one extreme is a school, headed in the United States by the distinguished chairman of this round table, which calls attention to the essential dependence of German exportation upon prior importation, and concludes that no such surplus as the *Dawes Plan* contemplates can be acquired, unless by intolerable and self-destructive sacrifices. It also stresses the difficulty of finding adequate foreign markets for any large export surplus.¹ At the other extreme is a school which finds that the attempt to make a steady volume of payments abroad gives rise more or less automatically, granted appropriate monetary and budgetary precautions, to conditions which will make the desired transfers possible as a permanent thing. The latter doctrine seems to me substantially correct. I have already elaborated my own views elsewhere,² but a brief recapitulation seems in order here. If an increase in the rate at which bills of exchange are withdrawn from the German market by the Agent-General for Reparation Payments is allowed to have its normal effect, a corresponding contraction in German bank deposits *must* ensue, relative to the levels these deposits would otherwise have reached. If the contraction is on any large scale, prices *must* then be affected, and the familiar repercussions on the balance of trade will develop. To the argument that Germany can export only if she imports first, an at least partial answer—so far as the argument is based on a true conception of the situation—is that the “essential” German imports are largely raw materials, the exports manufactures. Each unit of such imports will therefore be represented later by a much larger total money value of exportation. An increase in exportation cannot be an unconditional gain, I grant, but it will surely provide a growing excess of exports over imports. As to the difficulty in finding foreign markets, the existence of the difficulty is undeniable, but the odds are all in Germany’s favor. With an aggregate price level lower than those elsewhere, and given time, a solution can be found.

Finally, a certain amount of assistance can be derived from the sale of German securities abroad. But while this will help in particular years, its possible effect upon the credit side of the German ledger is limited. Germany does not need indefinite amounts of new capital from abroad, and within a few years at most her more pressing requirements will be filled. Moreover, the return movement of interest and profits has an unfortunate way of catching up with the inflow of new capital, and thus re-

¹See H. G. Moulton, “War Debts and International Trade Theory”, *American Economic Review* (December, 1925), pp. 704-707.

²See *Foreign Affairs*, October, 1925.

versing the direction of the *net* movement of capital.¹ When that happens, the burden of the reparations payments will be thrown primarily upon the German balance of trade alone. But there is every reason for thinking that a "favorable" balance can be acquired without undue sacrifice, and that the stipulated reparations can be paid.

GEORGE W. EDWARDS.—The leading movement in international finance during the past three years has been the settlement of the intergovernmental debts arising out of the Great War. These agreements have wrought a marked change in the general discussion concerning the obligations. Before their settlement, they were viewed mainly from the moral aspect, and bitter controversies were waged over such metaphysical questions as whether or not the creditor country was ethically justified in exacting repayment from a former associate in arms. The ethical aspect of the problem of intergovernmental indebtedness has since been supplanted by the economic viewpoint, and attention is now being directed rather to such queries as the capacity of the debtor nation to make payments, and its ability to transfer these payments.

Both questions may well be raised concerning all the existing intergovernmental debts, including those between the Allies and the United States and in turn those between Germany and the Allies. I shall, however, confine my remarks to the latter debt relationship, and, moreover, shall further limit my discussion to the external problem of transfer. The matter of Germany's ability actually to accumulate the necessary funds at home is primarily an internal fiscal problem, too extensive to be considered in this paper, and so will be referred to only in so far as it affects the cost of production, hence Germany's export ability and so relates directly to the transfer subject.

In brief, I wish to indicate certain difficulties in the operation of transferring payments, and in view of these obstacles to suggest the direction of our investment policy in regard to Germany.

In this country and abroad there is a difference of opinion as to the ability of debtor nations to transfer payments due on their external obligations.² This divergence of view arises not so much over whether the obligations actually can be transferred, but rather as to the relative ease or difficulty with which this end may be accomplished. The argument of those who minimize the difficulties of transfer may be summarized in brief as follows. Transfers from the debtor to the creditor nation may in part be effected through the former's surplus export of goods and services over

¹American investment in German securities in 1925 totalled over \$230,000,000, but even if this rate of new investment were kept up it would be offset by interest and profits payments, at present rates of interest, in ten or eleven years. There are no complete data on investment by other countries in Germany.

²Professor Taussig in *American Economic Review*, Vol. X, No. 1, Supplement, pp. 38-49; report of Stamp, Pirelli, and deChalendar, "Reparation Payment and Future International Trade," issued by the International Chamber of Commerce, Paris, May, 1925; Marold Moulton, *American Economic Review*, Vol. XV, No. 4, 700-716; Harold Moulton, *Reparation Plan*; Moulton and McGuire, *Germany's Capacity to Pay*.

imports of goods and services. Such a surplus is created when the price level in the debtor country is normally lower than that prevailing abroad. However, in case of need, the price level in the debtor country, according to the classical theory of credit control, may be artificially regulated by an increase in the discount rate.¹ The export surplus of the debtor country may also be artificially stimulated by a depreciation of its currency, which will encourage exports and discourage imports. Finally, it is held that an export surplus includes not only goods and services, but also capital as well, and that intergovernmental debts may in addition be settled by means of securities.²

The general theory which subscribes to the effectiveness of a discount policy in controlling the volume and cost of credit, and so the level of prices, assumes an ideal state of an orderly money market such as may have existed in the leading financial centers before the war. Whatever may have been the efficacy of the discount policy of central banks then, certainly subsequent financial history fails to arouse confidence in its present power. In the first place, most of the money markets of the world continue demoralized, and there is little prospect of an immediate return of conditions which would permit their regular functioning as before the war. The classical theory which accepts the effectiveness of the discount rate as a medium of credit control, overemphasizes the cost of money as an element in the total cost of production to the individual entrepreneur, and fails to give sufficient weight to other factors such as labor, taxation, and tariff charges. These factors have become of relatively greater importance particularly in the case of Germany. In that country, it would seem that the average production of the individual worker has declined, and so labor costs have increased proportionately. Also, government charges have become actually and proportionately heavier due to Germany's foreign obligations, and due to the added burden of social legislation enacted since 1918.³ For these reasons the cost of money has become relatively less significant in the total cost of production, and so is less important in influencing the decisions of merchants and manufacturers.⁴ Hence, it cannot well be relied upon as an effective influence governing business operations, controlling commodity prices, and so regulating the export surplus.

Nor can the export surplus be long maintained by policies leading to the depreciation of the debtor's currency. It is a well-recognized fact that in the initial stages of currency depreciation, the external value of the nation's money declines more rapidly than the internal, and so foreign exchange rates abroad fall faster than commodity prices at home. As a result, a country with such depreciated money is a good place to buy from, but a poor place to sell in, and so exports are increased while imports decline. But this situation is only temporary, for the experiences of Russia,

¹J. W. Angell, *Foreign Affairs*, October, 1925.

²A. A. Young, *Foreign Affairs*, March, 1924.

³*Frankfurter Zeitung*, June 29, 1925.

⁴*Monthly Bulletin of Direction der Disconto Gesellschaft*, Feb., 1925.

Austria, Germany, and now France clearly show that the domestic price level as calculated in depreciated money soon reaches the international level expressed in gold values and eventually exceeds it. Hence, in the long run, the policy of depreciating the currency of the debtor country diminishes rather than increased the export surplus.

As stated before, it is sometimes held that international debts may be paid not only by a transfer of goods and services, but also by means of securities. The weakness of this theory becomes clear, if the nature of a security transaction be analyzed. This security may take the form of a bond or of a proprietary interest. The former represents a promise to pay a fixed return to the creditor, while the latter expresses a claim to the profits of an enterprise. The settlement of an intergovernmental debt by transferring securities may result in a change of the obligor, by substituting industry in place of the government. Such transfer of securities from the debtor to the creditor country may also result in deferring the day of payment, but such postponement cannot continue *ad infinitum*. Therefore, notwithstanding these changes as to parties and time, the obligation of the debtor country is no whit reduced but must eventually be paid.¹

In general, the argument which minimizes the difficulties of the present transfer problem assumes a movement of international capital as occurred throughout the century preceding the war. Within this period, huge international obligations were incurred largely by nations with rich and unexploited natural resources, and the funds thus obtained were applied chiefly to their development. However, the vast intergovernmental debts amassed since 1914 have been incurred largely for unproductive purposes as conducting war or paying the penalty of war in the form of reparations. Thus, unlike the present intergovernmental debts, the pre-war international obligations possessed a certain degree of self-extinguishment in that they carried the means for their own amortization through bringing about increased production. Hence, argument by analogy in comparing the transferring ability of a pre-war debtor, as the United States, with that of a present obligor, as Germany, is not helpful because of these differences in the resources of the debtors and the purpose of the debts, in addition to the variations in their size and in the time of contraction.

It would therefore seem that intergovernmental obligations can be settled by the debtor country only through developing an export surplus of goods and services. This end can be attained not by artificial methods of discount regulation or of currency depreciation, but rather by the natural economic force of a relatively lower price level in the debtor country as compared with that prevailing abroad.

In view of these conclusions, what then should be the direction of American foreign investment policy? Our investments should be guided by the usual credit factors such as the capacity and the willingness of the debtor to pay, but in addition full consideration should be given to his ability to transfer such payments. This problem would become particularly

¹Dr. A. Lansburgh, "Die Gesetzmässigkeit der Internationalsee Kredit Berichten," *Die Bank*, December, 1925.

difficult if the debtor were called upon to effect transfers within a short period of time. This is not a hypothetical but a real problem, in view of the large volume of short-term credits which have so far been extended to Germany. According to estimates presented at the German Bankers' Convention last fall, the German foreign floating debt then amounted to 1,600,000,000 gold marks, while at the end of November the total private indebtedness was placed at 3,500,000,000 gold marks.¹ It would therefore seem that short-term loans granted to Germany are almost equal in amount to the long-term loans. These short-term credits are in the form of commercial paper or straight advances, usually bearing an early maturity date. Should a large number of these foreign creditors, frightened by a fresh European political crisis, suddenly demand payment, Germany might well encounter difficulty in making the necessary transfers, even though she possessed the means of settling such obligations over a more extended period. Before the war, short-term international obligations, from well-secured commercial drafts to uncollateralized finance bills, could readily be transferred in case of need among several active money markets. Today most of them are scarcely able to meet their domestic credit requirements, and so cannot well assume large foreign obligations. Hence, the present international short-term money market lacks the element of liquidity of pre-war days. In general, the liquidity of a loan depends not so much on the capacity of the debtor to repay his obligation as upon his ability to find another creditor who will take it over and thereby settle the original undertaking.

In view of this condition, the short-term obligations of Germany should as far as possible be converted into long-term loans whose payment could better be anticipated over a greater interval of time.

In order to decrease the cost of production, and hence to stimulate exports, foreign credits to Germany should in addition be granted only for constructive purposes. For this reason, the American money market should grant loans not so much to public as to private borrowers. American funds should not be given to foreign governments for carrying out exchange stabilization schemes unaccompanied by real fiscal reforms or to foreign municipalities for undertaking public works incapable of yielding returns. Rather, aid should be granted to finance undertakings as hydroelectric projects, plant improvements, or agricultural developments. These will reduce the cost of production, lower prices in the debtor country, and thus tend to increase its export surplus.

A certain amount of control is exercised by various governmental bodies in Germany over both public and private borrowers, but such regulation is purely political in nature and none too effective. Real control, and hence true responsibility, lies in the hands of the lenders, who in their own self-interest must judge whether or not a loan is productive in nature.

In summarizing, the existence of a vast volume of intergovernmental indebtedness, political and not economic in origin, has created a new factor

¹Speech of Dr. Schacht, President of the Reichs Bank, *Frankfurter Zeitung*, Dec. 17, 1925.

in judging international credit; namely, the ability of a debtor country to effect transfers to meet its external obligations. In view of this new factor, capital advances should be extended: (1) for a relatively long maturity to enable the debtor more readily to make transfers; and (2) for a constructive purpose in order to stimulate the export surplus.

LEO PASVOLSKY.—As my contribution to this discussion I shall merely relate the post-war experience of six European countries; namely, Germany, France, Austria, Czechoslovakia, Hungary, and Poland. While the trade data are not altogether complete and accurate, they are sufficiently reliable to permit the answer to the three following questions:

1. What is the effect of depreciating exchanges on the export-import ratio of the countries under consideration?

2. What influence does the foreign trade situation resulting from depreciating exchanges have on other phases of economic activity?

3. What is the relation between currency depreciation and debt-paying capacity over a long period of years?

I start with the year 1920. It is a year of mildly fluctuating exchanges in all the countries under consideration. During that year we have for Germany an export-import ratio of 70; for Czechoslovakia, 118; for France, 54; and for Austria, 54. Reliable trade data for Poland and Hungary are not available for that year.

In 1921, German exchange depreciates rapidly after the middle of the year; the ratio for the year goes up from 70 to 84. Czechoslovak exchange drops slowly through the second half of the year; the ratio goes up from 118 to 122. French exchange appreciates slightly during the first half of the year, and depreciates equally slightly during the second half, retaining, however, at the end of 1921 a considerably higher level than at the end of 1920; yet the ratio goes up from 54 to 90. Austrian exchange depreciates all through the year, and does so fairly rapidly toward the end of the year; yet the Austrian ratio drops from 54 to 53. Hungarian exchange depreciates slowly; the ratio is 48. No figures are available for Poland.

In 1922 German exchange depreciates quite rapidly; yet the export-import ratio drops from 84 to 64. French exchange depreciates very slightly; the ratio drops from 90 to 89. Czechoslovak exchange appreciates very considerably during the year; yet the ratio rises from 122 to 141. Austrian exchange depreciates quite rapidly during the first half of the year, and is stabilized during the second; the ratio rises from 53 to 63. Hungarian exchange continues to depreciate slowly; the ratio rises from 48 to 60. Polish exchange during the year is on the downgrade; the ratio is 79.

In 1923 German exchange goes through a catastrophic fall; the ratio rises to 99. Czechoslovak exchange is stable through the year; the ratio drops from 141 to 123. French exchange depreciates slightly; the ratio rises from 89 to 91. Austrian exchange remains rigidly stable; the ratio drops from 63 to 58. Hungarian exchange depreciates through the year;

the ratio rises from 60 to 80. Polish exchange falls very rapidly; the ratio rises from 79 to 108.

In 1924 German exchange is stable; the ratio drops from 99 to 74. Czechoslovak exchange is stable; the ratio drops from 123 to 108. French exchange begins the year with the lowest level yet attained, appreciates sharply in April, drops somewhat in June, and remains fairly stable through the rest of the year on approximately the same level as during the second half of 1923; the ratio goes up from 91 to 103. Austrian exchange remains rigidly stable; the ratio drops from 58 to 57. Hungarian exchange depreciates during the first half of the year, is then stabilized and remains rigidly stable during the second half; the ratio rises from 80 to 81. Polish exchange remains stable; the ratio drops from 108 to 85.

So much for the relation between exchanges and export-import ratios. Before summarizing the results, let us examine briefly the general situation in each of the countries under consideration.

Prior to the period of stabilization, i. e., 1924, Germany's situation is characterized by two outstanding features: her State budget is unbalanced, and her balance of accounts is unfavorable. She makes up her budgetary deficits by resorting to the printing press. Her price level is constantly rising, and her exchange drops. The lag between the two supplies a temporary stimulus to exports and a slight bar to imports. The relatively small unfavorable balance of accounts is covered at first by such means as the sale of property and of paper marks outside the country.

Then comes a new pressure for foreign currencies. About the end of the summer of 1921 reparation payments begin to be enforced. The deficit in the balance of accounts increases. It begins to press more and more heavily upon the exchange, the price level, and the budgetary deficit. Finally the exchange becomes unmanageable, and we have the debacle of 1923. Germany reaches the depths of her misery; production drops off; consumption is at its lowest. And yet Germany scarcely attains a balance in her merchandise trade, even after the export figures have been arbitrarily scaled upward by the Reparation Commission experts.

Then comes the stabilization of the currency, the introduction of the Dawes Plan, and the balancing of international accounts by means of foreign loans. German exports rise slightly in 1924 by comparison with 1923, but the imports make a sharp jump. The importation of foodstuffs rises from 1.2 billion marks to 2.6; finished products increase from 800 millions to 1.8 billions; raw materials increase from 4 billions to 4.5 billions. The country had been drained of consumption goods, especially during the year of an exceptionally high export-import ratio. The exportation of finished products in 1924 is almost exactly the same as in 1923.

The first half of 1925 presents a somewhat different picture. The imports of finished products show a very slight increase over the first half of 1924; 924 millions in 1924 and 1,069 millions in 1925. But the imports of foodstuffs rise from 1.1 to 1.9 billions while the imports of raw materials increase from 2.4 to 3.4 billions. At the same time the exports of finished products increase from 2.3 to 3.1 billions. For a 1.8 billion

increase in the imports of foodstuffs and raw materials we have only an 800 million mark increase in the exports of finished products. Considerably over half of the import increase has been consumed in the country, and the export-import ratio which was 63 during the first half of 1924 was only 64 during the first half of 1925.

Thus in the case of Germany currency depreciation stimulates exports while the depreciation continues. But it destroys working capital, disarranges production, reduces consumption to a disastrously low level, disorganizes the budget, and finally brings about a complete economic debacle. Stabilization begins with a replenishment of stocks, purchased with the proceeds of foreign loans, which now fill the gap in the balance of accounts. The German economic system is still based essentially upon a conversion of imported foodstuffs and raw materials into exportable finished products. Only it is now saddled with additional foreign obligations, which represent new and increasing burdens for the country's balance of payments.

We have exactly the same situation in the case of Austria, another essentially industrial country. Again depreciation is caused by an interaction between budgetary deficits and unbalanced foreign accounts, and again stabilization, achieved on exactly the same basis of foreign loans, brings in its wake all the consequences that characterize the German situation of the past two years.

In Hungary we have a different situation. Her principal exports are foodstuffs, which are indigenous products. The proceeds of her exports depend, not so much upon the exchange situation, as upon the size of her exportable surplus and the world price of staples. The sharp jumps in her export-import ratios from 1921 to 1922 and from 1922 to 1923 are less due to currency depreciation than to the increase of agricultural production, and to the lessening of export restrictions, which formed an important part of the country's economic policy during the years immediately following the war, simultaneously with the retention of rigid import restrictions. The 1923 ratio is due to a sharp decline of imports, depreciation acting in this instance as an effective barrier; but exports remain on the same level as in 1922. In 1924 we have a sharp rise in exports, due largely to a rise in the world prices of foodstuffs, but a still sharper rise in imports, following in the wake of the unusually low import level in 1923. The export-import ratio, despite depreciation, rises only from 80 to 81. Here depreciation of exchanges works havoc with such important factors as the working capital of the country, but it provides very little compensation, even of a temporary nature, through an increase of the export-import ratio.

The Polish situation is very similar to the Hungarian. The acquisition of Upper Silesia and an exceptional crop are much more responsible for the increased export-import ratio of 1923 than the concomitant depreciation of exchanges.

In France the gradual decline of the franc during the years 1921, 1922, and 1923, produces practically no change in the export-import ration.

On the other hand, the more violent fluctuations of the franc in 1924 inaugurate a considerable business expansion, based on inflation, and reflected in the increase of the export-import ratio. But this increase, which has continued into 1925, is accompanied by further depreciation, which, under the powerful pressure of the State budget, produces rapid inflation and pushes French currency almost irresistibly toward that unmanageable condition, which precedes a debacle à la Germany and Austria.

In Czechoslovakia, we have a fairly stable situation through the first four years of the period, except for 1922, when Germany makes an extraordinary demand for Czech products and the export-import ratio rises to unprecedented heights, in spite of appreciating currency. But four years of a substantial excess of exports over imports had exacted their toll of the country's stocks, and the year 1924 is one of replenishment, with a sharp drop in the export-import ratio. Foreign exchanges have played very little part in the situation.

Such is the picture of the situation in the six countries which we have set out to examine. It is one of bare outlines, of course. But in spite of its unavoidable sketchiness, certain things stand out quite distinctly. We can now return to the three questions set forth at the beginning.

What is the effect of depreciating exchanges on the export-import ratio?

Whenever there are no outstanding extraneous factors operating in the situation, the export-import ratio shows a tendency to increase when exchanges are in the process of depreciation. The year 1922, however, provides several interesting exceptions. The German ratio falls, in spite of depreciation; the Czechoslovak ratio rises, in spite of appreciation; the Austrian ratio rises, in spite of the stabilization of the currency during the second half of the year. Another exception is the stability of the French ratio through the years 1921, 1922, and 1923, in spite of more or less continuous currency depreciation.

We also find that periods of stable exchanges immediately following periods of depreciation usually show falling ratios, however depreciated the stabilized currency may be with respect to par. Finally, the phenomena observed here are much more noticeable in countries which are predominantly industrial, than in those which are predominantly agricultural.

What influence does the foreign trade situation resulting from depreciating exchanges have on other phases of economic activity?

Of the six countries under consideration, Germany, Austria, Hungary, and Poland have passed through a complete depreciation of their currency; France is still in the throes of a mild depreciation, and Czechoslovakia, after a period of depreciation, has a low, but fairly stable, currency. In the case of the first four, depreciation was due to an interaction between budgetary deficits and unbalanced international accounts, and in each case it was the pressure for outside payments that finally rendered the currency unmanageable and brought about a complete debacle. The results of currency depreciation have penetrated into every ramification of life. In the case of the last two the process is slower and less spectacular.

Depreciation has led to business expansion, in the course of which exports were stimulated, imports contracted, and the export-import ratio showed a tendency to increase. This process, however, tends after a certain time to deplete a country's stocks of both raw materials and finished goods, and results in a period of replenishment, when the ratio goes down.

What is the relation between depreciating exchanges and debt-paying capacity?

The experience of the countries that have gone through the depreciation has been that continued pressure exerted by foreign payments—whether in the form of external debts or of adverse trade balances—converts moderate depreciation into violent depreciation, and thus upsets the whole economic structure. The experience of all six of the countries we have examined indicates that the improvement of the export-import ratio due to depreciating exchanges is at best merely a temporary phenomenon. Whenever there is an uncovered gap in the balance of payments, a continued pressure for foreign payments serves for a time to diminish this gap; in some cases it may even give an export surplus. But the effects of this process upon other phases of economic life lead inexorably to an economic disorganization of the debtor country. The process carries the seeds of its own destruction.

During recent months I have had an opportunity to visit all the countries discussed here, as well as some of the others in which currencies are still unstable. I took the occasion to discuss the problems under consideration here with a large number of economists and bankers. The almost unanimous opinion of the people with whom I talked is one of complete skepticism with regard to the idea that transfers of large foreign payments over a long period of time can be accomplished automatically through the mere mechanism of price lag resulting from depreciating exchanges.

Their most common criticism of the idea is that it assumes that all other factors will remain the same when a part of the nation's purchasing power is transferred to foreigners. They point out that when this happens production does not remain unchanged; that the budget is adversely affected; and that working capital is diminished. These men, some of whom are concerned at first hand with the administration and handling of transfers, regard, as the first prerequisite of possible transfers, a stable currency, or at least a currency fluctuating only within negligible limits.

ECONOMICS AND GEOGRAPHY

O. E. BAKER, *Chairman*

No doubt many of those present do not have a clear conception as to what geography is. If this is the case they need feel no chagrin, for geographers are not agreed as to what geography is. Therefore, I shall not attempt to tell you what it is, but merely indicate what it was and what it seems likely to be.

Geography has been called the mother of sciences. At an early date the needs of travelers and sailors, supplemented by an interest in the stars,

led to the development of astronomy and the allied art of navigation. The practice of this art, in particular the discovery of America and the circumnavigation of the earth, gave geography a bent toward exploration and surveying which more or less dominated the science until a century ago. Geographers mapping the surface of the earth in the course of time became curious as to the subsurface, the origin of the rocks and their structure. So a new science was born, geology—perhaps we may place the date at 1830 with the publication of Lyell's epoch-making book.

Later along the border line between the old exploratory geography and the developing science of geology another new science called physical geography grew into manhood. Physical geography is concerned with explaining the origin of the surface of the earth, the land relief, the topography, and describing its characteristics.

The land surface is partly the result of the character and structure of the rock beneath and partly the result of the rains and winds from the air above. The study of these winds and rains during the past fifty years or more has given birth to still another science, meteorology, which deals with atmospheric phenomena.

Finally, the experience of the farmers of the world has compelled geographers and geologists to recognize that the surface soil is something different from the subsurface rock, that it contains organic as well as inorganic elements—humus and many kinds of plant and animal life which have a profound effect upon fertility. So at present geography is giving birth to another natural science, that of the soil.

This family of sciences which describes and explains the rocks beneath the surface of the earth, the atmosphere above, and the soil that lies between, and which, moreover, measures distance and deals with matters of location, is what geography has been.

I recall a few years ago that in a round table meeting of geographers, like this round table of economists, one of our most distinguished geologists and physical geographers expressed the opinion that the days of geography were approaching an end. The earth had all been explored—even the North and South pole had been reached. Geology and physical geography had seemingly made their greatest contributions and were subsiding into the comfort of middle age. Meteorology also was approaching maturity, and these new ideas about soils he did not understand. Apparently little remained for geography to do.

About this time, in fact a little earlier, geography, the mother of the natural sciences, met economics, the father of the social sciences, and, almost unconsciously, a deep affection has developed. Thus we have the new hyphenated subject we are now to discuss.

It is my opinion that this affection, even though it is a little one-sided as yet, is likely to renew the youth of geography at least. At Clark University a magazine has recently been started called *Economic Geography*, and at the University of Chicago, where the other leading school of geography is located, although the staff prefers to speak of the field of geography as the study of man's response to his physical environment, or "human ecology," the subject matter taught is economic geography.

This association with geography will undoubtedly be good for economics likewise, because it will help to keep economics practical—keep its feet on the earth, to use a popular phrase. Geographic knowledge is basic in

the study of land economics, because the physical conditions and the location of the land are the principal factors affecting its value. It is basic also in studies of the economics of manufacturing, because it provides an understanding of the origin and character of the materials used and the relative advantages and disadvantages of different locations for a factory, both with reference to purchase of raw materials and sale of the finished goods. It is basic, finally, to studies of transportation and trade, because geography has been from the beginning the science of location and distance.

The rapid development of economic geography since 1914 is doubtless to be explained by the completion of the exploration and, one may almost say, the occupation of the earth by man. With the occupation of the earth it becomes necessary to utilize the natural resources more efficiently. The period of expansion is passing; the boundaries of the nations are becoming fixed. To supply the increasing population with food, raw materials, and finished goods, it is becoming necessary to cultivate the land more intensively, to mine the mineral products more completely, to manufacture more efficiently, and to reduce the cost of transportation and marketing to the lowest point. To provide information which will aid the farmers, the miners, the engineers, the manufacturers, merchants, and transportation men of the world to utilize the natural resources with greatest economic advantage, both at present and with a view to the future, is the opportunity and the duty of workers in the field of economic-geography. This, in my opinion, is the geography of the future.

Dr. Ely, I have asked to open the discussion with remarks on the relation of geography to land economics. Dr. Taylor, also of the Institute of Land Economics, will follow with a discussion of the "Geographic Basis Essential to the Guidance of Agricultural Production." Then Dr. Orchard, of Columbia, will speak on the "Contributions of Research in Economic Geography to the Economic Concepts of Property in Minerals." These three papers relate primarily to geography in relation to land economics.

Another field in which there is much interest today is regional geography. Dr. Bowman, Director of the American Geographical Society, will discuss the subject "Geography and Economics in a Study of the Pioneer Belts of the World"; and Dr. Roorbach, of the Harvard Graduate School of Business Administration, will follow with a paper on "Regional Economic Geography."

Then the trade and commerce side of the subject will be taken up, Dr. Strong, of the Department of Commerce, speaking on Geography in the Foreign Trade Prospects of the United States, followed by Dr. Durand, Chief of the Research Division in the Bureau of Foreign and Domestic Commerce, and who has just returned from Europe, on "Geography in the Foreign Trade Prospects of England and Germany."

RICHARD T. ELY: When I think about the relation of land economics to geography, upon which I am asked to speak to you, I recall one of Aesop's Fables, in which he speaks about the classification of animals. When man speaks about the classification of animals, he says "human beings and all other animals"; but if the elephant were making the classification, he would say "elephants and all other animals." Perhaps I am not right in assigning this to Aesop, and I am not sure that I am right in other

particulars, but, at any rate, the meaning is obvious. Now, it is just this way with Dr. Baker and myself when we talk about land economics and geography. At a meeting of geographers held in Ann Arbor two or three years ago, Dr. Baker had a chart, and I think that the great circle included as a subdivision of geography, land economics. I recall that I had a chart in which the great circle was land economics and the segment was geography. It all depends upon the point of view, and upon the one who is making the classification.

Geography and land economics are certainly coming to cover a large common field. As I read modern treatises on geography I find that more and more they are dealing with phenomena and forces that likewise belong to the field of land economics. Geography is concerned with the utilization of land, and Dr. Baker is making a name for himself, and at the same time rendering a public service in his treatment of land utilization. It is undoubtedly true that one who is taking a complete course in land economics should include geography, and I believe that the geographer, at the same time, should include in his field land economics.

After all, geography and land economics have their differences, even if closely related fields. In economics we deal with property and value, and these two concepts are related because we have property where we have value. When the land economist studies land utilization he thinks of value, and what goes with it, and that includes the distribution of wealth. Possibly he goes more carefully into the causes than the geographer. The geographer finds various methods of land utilization and describes these. The land economist asks the questions why and wherefore and wants to know the causes, and also he has particular needs in mind. He discovers that certain ways of utilizing land bring misfortune, as at the present time in the case of agriculture. He seeks to improve conditions, and that leads him into a consideration of values, some of which are satisfactory, and some of which are unsatisfactory, and as a practical end he desires to change unsatisfactory human relations dealing with the land.

I am closing simply with the remark that I have said very few things about a very large subject.

H. C. TAYLOR.—Economic geography provides the background for agricultural economics. The time was when students thought it possible to go to a farm, pass through the front gate, close it behind them and find upon the farm all the facts essential to the organization and management of the farm. It is true there are important factors influencing farm management which can be secured no place else than upon the farm. Which crops can be grown, the way in which the different crops fit together with respect to their demands upon the time of the farmer, and the way in which crop and livestock enterprises fit together both from the standpoint of utilizing salable and unsalable products of the field and from the standpoint of the utilization of farm labor and equipment, are facts which can be secured from the individual farm. Fortunately however these facts need not be determined for each farm. The collection of these facts in a few typical cases for each region with common soil and climatic characteristics will serve quite as well as a complete array of the facts from all the farms. Hence the geographer has an important function

to perform in marking out the agricultural regions from the standpoint of the basic conditions of production.

The student of farm management no longer feels that he can draw conclusions regarding what to produce and how to utilize the products of the farm without many facts which are not found on the farm. The farmer has come to recognize that he must watch the market and the trend of prices in order to organize his farm on a profitable basis, but in these days of uncertainty students of farm economics recognize that they must go behind the markets to the conditions of supply and demand if they are to give wise council to the practical farmer. It is not the price at planting or breaking time that counts, it is the price at the time the product is ready for the market that should be held in mind when deciding what to produce. The recognition of this fact has led to the development of outlook reports for the farmers. These reports attempt to state the facts which point to the probable conditions of demand and supply six or eight months in advance. In order that this may be accomplished the economic geography of agricultural production must be known for each crop throughout the entire competing area. In some cases the competing area is only a part of the United States, but in many cases many countries located in both hemispheres enter into the competition. In the case of wheat, cotton, wool, beef, pork, lard, and dairy products, for example, it is necessary for the student and the farmer who would forecast the probable condition of supply months in advance to hold in mind an enormous amount of world agricultural geography. The working out of the details of the geography of agriculture in each part of the world is a task which needs to be performed by the geographer and turned over to the student of agricultural economics who attempts the making of outlook reports. With this background supplemented by the recent trends in production and the latest possible statistics the agricultural forecaster may prepare a statement in February which will aid the farmer in planning his farming program for the year in so far as probable changes in supply due to acreage increase or decrease may be a factor.

A full knowledge of the geography of agricultural production does not suffice. To this should be added an equally complete statement of the industrial geography of the consuming territory. Full information regarding the occupations of the consumers is the starting point for a study of the probable changes which may take place in demand owing to changes in the degree of employment of the people who consume the products of the farm. This background of industrial geography extends to many parts of the world. Particularly is this true of the industrial conditions which determine the demand for our surplus wheat, pork, lard, and cotton.

With the geographic conditions of supply and of demand clearly worked out and supplemented by the current facts, the farmer has the geography available which he needs to know in deciding what to produce, but when he comes to the marketing of his product he requires some more geographic information of a very specific sort. He needs to have a clear picture of the transportation facilities, the storage facilities, and the location and characteristics of the organizations through which he may sell his products.

Thus I have briefly summarized the vast field of economic geography which is needed by the farmer in his work as a farm manager planning

his production program and arranging for the sale of his products. It has not been long since the vision of the farmer was limited to his own neighborhood, but the modern farmer must have a wider vision. The geographer can find here a large sphere of usefulness. Through the elementary geographies much of this background of our modern economic life is being taught. Each succeeding generation of farmers may be counted upon to hold a larger view of the world and be more able to adjust himself to changing economic conditions in the interest of the farmer and his family, in the interest of the consumers, and in the interest of permanency in our national life.

JOHN E. ORCHARD.—A geographic study of minerals, since it is concerned with the influence of minerals upon man's efforts to make a living, should be productive of contributions to economic theory and to its understanding. It is almost impossible to draw a sharp line between economics and geography in such a study. The student may undertake an investigation that appears to be thoroughly geographic. His conclusions, when they are reached, may prove to be geographic, but in the course of his study he is certain to find himself considering problems that are unquestionably economic. Because of his knowledge of minerals, he has the opportunity of making inductive contributions to economic theory though his chief interest may be in another direction.

For several years, I have been studying minerals from the geographic point of view. At one time my study carried me into an analysis of mine royalties. Out of that analysis came some suggestions regarding the economic nature of royalties and an application of the theory of rent to mineral lands.¹ More recently, I have been making a study of the ownership of mineral lands from which has developed a geographic explanation of the present agitation for the nationalization of mineral resources. It is that explanation that I wish to present today, not as a finished study, but as an example of the sort of contribution that geography may make to economic theory.

There are two principal systems of ownership of mineral lands. In one group of countries, France and Germany for example, minerals are the property of the state. They cannot be worked by the owner of the surface or by anyone else until a lease or concession has been granted by the state. In another group of countries, England and the United States for example, minerals are the property of the owner of the surface. The state has no more control over them than over the soil. They may be exploited, leased or sold to another party, or permitted to lie idle, all according to the will of the owner.

In both groups of countries, there is at present a strong movement toward a stricter control of minerals by the state. In the latter group, where the minerals are privately owned, there is the demand for nationalization. In the former group, recent laws have given to the state a greater

¹See "Rent of Mineral Lands," *Quarterly Journal of Economics* (February, 1922), pp. 290-318.

measure of control over minerals. The movement is not confined to minerals. It is evident in some degree in the case of all natural resources.

Among the minerals, the movement to nationalize coal has been especially strong. Because the miners of England have been so active in their support of the movement, it has seemed as though it originated with them. They have advanced as the principal arguments in support of nationalization the claim that it would bring to the miners an increase in wages and to the consumers a decrease in prices. These are arguments well calculated to attract the support of the workers and of the consuming public, but their economic soundness is extremely doubtful. I have had occasion to point out in a discussion of the nature of mine royalties that their abolition through nationalization could result, directly at least, in only a slight addition to wages or a slight reduction of prices.¹ If the results of nationalization are to be limited to its effects on wages or prices, it is not an important movement. In my opinion, the origin of the movement is to be sought elsewhere than in any demand for higher wages or lower prices. It will have more far-reaching and important results. The present demand for nationalization is a response to changing conditions. It is to be explained by the change that is occurring in the relationship of man to mineral resources. In other words the movement has a geographic origin.

Different periods of economic development have been productive of different ideas of property. Throughout the early history of Europe, there existed a long period of scarcity of minerals. Only a few of the minerals were known and there was little knowledge of their uses. Coal is mentioned in various writings of this period, but it was not used and wood was about the only fuel. The Mediterranean peoples made the long journey to England, the mineral frontier of Europe, for tin, lead, and copper. Copper and lead were also mined in Spain and the precious metals were secured from Spain, Hungary, and Asia.

In Roman law, developed during this period of scarcity, minerals were declared to be the property of the state. As new lands were conquered, their mineral deposits became regalia. The state control of this period was not based upon any desire to insure a wise and economical exploitation of the minerals. It was a period of the glorification of the state in the person of the ruler. Since the minerals were scarce, their control was expected to add to the wealth and power of the individual or body controlling them.

The period of scarcity eventually gave way to a period of abundance. No definite date can be fixed for the transition. Different events ushered in the new period for different minerals. For the precious and semi-precious metals, it was the discovery of the new world and the resulting flow of gold and silver and copper into Europe. For coal it was the discovery of its uses, especially in the blast furnace and in the steam engine, the development of cheap transportation, and the perfection of the pump

¹*Loc. cit.*

and the safety lamp which made possible the exploitation of deposits other than the relatively poor and shallow outcroppings.

The period of abundance called for a new concept of property. The ideal of the time was no longer to add to the prestige of the state. There was also the desire to encourage the development of resources. Roman law, however, had spread throughout the continent and to meet the new needs, it was necessary to greatly modify this heritage of the age of scarcity. The Roman principle of ownership of the minerals by the state appears in the declaration of Charles VI of France in 1413 that no feudal lord, temporal or spiritual, had any right whatever in minerals. The claim of the state to the minerals has persisted in French mining legislation down to the present, but the period of abundance brought important modifications to encourage the exploitation of the resources. In 1698 Louis XIV conferred on all surface owners the free right of mining coal. In the law of 1791, no royalty was reserved to the state and the owner of the surface was given no payment for minerals removed from his land other than compensation for damages to his property. Two restrictions appeared in the law. The concessions granted by the state were limited to a term of fifty years and the surface owner was declared to have a prior claim to the concession. Even those restrictions proved to be too hampering, however, and in the law of 1810 they were removed. Concessions were granted in perpetuity and in granting them the state surrendered practically all control over a deposit. The mine could be operated in any way that the operator wished whether that way was economical or wasteful.

The French law of 1810 has served as the model for the mining laws of practically all of the Continental countries. In Germany, however, with its greater wealth of minerals, even more encouragement has been given to the prospector and operator. The Prussian law of 1865, a law followed by most of the German states, provided for the separation of the ownership of minerals and surface, but it gave to anyone the right to search for minerals, a right that could not be interfered with even by the owner of the surface. Upon the discovery of minerals, the state mining authorities granted, usually to the discoverer, a license that carried with it not only the right to work the deposit but also property in the mine. The operator was not required to make any royalty payment to the owner of the surface though he was required to compensate the owner for damages and to pay to the state a tax on the yield. The Prussian system is known as the system of free mining. It was calculated to encourage the discovery and the exploitation of the mineral resources with the minimum interference from the state and the surface owner.

England has developed a system of mining law more thoroughly a product of the period of abundance than the laws of the Continental countries. The country can scarcely be said to have passed through any period of scarcity, for from the earliest time it has been a land of mineral abundance. Because of its more isolated location, England did not come so directly under the influence of Roman law and did not have the restricting influence of that heritage. The law of property in minerals has had much

the same development as the law of property in the surface. Its origin is obscure and in this paper space does not permit of any attempt to trace out its development. Though there do exist some provisions reminiscent of the Roman law, minerals in Great Britain go almost without exception with the surface. They are privately owned. It is a system offering probably greater encouragement than any other to the development of mineral resources. The British practice has been followed by the United States and by the British colonies.

The same conditions of the period of abundance that were responsible for the character of mineral laws also underlay the development of the *laissez faire* school of economic theory. It was a philosophy that undoubtedly accomplished its prime purpose, the exploitation of material resources, but it was accompanied by evil tendencies. Resources were developed in a wasteful fashion and with an eye to the profit of the individual and not of the welfare of society.

We are now passing into a third period, a period that threatens to be another period of scarcity unless the transition is made wisely. We realize that the mineral resources are not unlimited and we are beginning to appreciate more and more that with the increase in population and the continued use of the resources eventual exhaustion is inevitable and that scarcity will be hastened unless the remaining resources are exploited more intelligently than they are being exploited at present. Our prime desire is no longer a desire to exploit the resources as rapidly as possible, but to exploit them with an eye to waste and to the needs of the future. To insure more economical development, it seems essential that a greater degree of social control should replace unrestricted individual enterprise. It is in response to the changed relationship of man to mineral resources from abundance to threatened scarcity that the demand for a greater degree of government control has arisen in practically all of the countries of Western culture. It is evident in the French mining law of 1919 replacing the grants in perpetuity with leases for a term of ninety-nine years and vesting in the state a much stricter control over the operation of the mines. In Germany a law was passed in 1907 giving to the state the exclusive right to explore for and to mine coal and several other minerals. This law does not prohibit the private operation of mines, but makes such operation absolutely dependent upon the approval of the state.

The Continental countries, with their heritage of the Roman law, had a comparatively short distance to go in a return to closer government control. In the United Kingdom, the demand for restriction has taken the form of the movement for the nationalization of the minerals. In the United States the coal of the public domain has been removed from private entry and is to be worked on leases granted by the Federal Government. The movement for the nationalization of minerals now privately owned has gained little headway, but it will undoubtedly be an important question of the next few decades.

New conditions demand new concepts. A change in the relationship of man to the supply of a resource necessitates a new concept of property in

that resource. A concept, the product of a period of abundance, when the all-important need is exploitation, should not be expected to be effective in a period of scarcity when conservation is essential. It is surprising, not that there should arise a demand for a change in our property concepts, but that there should be so much inertia and so much opposition. There is nothing sacred about any theory of property and one who challenges it is not necessarily an enemy of society. The current concept of property right should rest not upon some heritage of past ages, but on the existing needs of society, needs that are determined in large part by the relative scarcity or abundance of the resource in question.

G. R. ROORBACH.—By regional economic geography is meant the description of the economic life of a geographical area with the purpose of showing in what ways and to what extent the economic life is determined, or influenced, by the geographic environment. The purpose of such a study is both to determine the relationships that exist in a given region between the environment and the economic life of its people and to see if there are not discoverable, through the study of many environments, general principles by which the relationships between environment and economic life may be expressed. That such relationships exist, I think no one can question. There may be room for doubt, however, as to how far there may be developed a body of general principles of relationships of such wide application that they may be useful in interpreting the present economic life of a region, or in reaching a reasonably reliable estimate as to its future.

The economic geographer of course recognizes that the human activities of a given region are influenced by many factors other than environmental. Racial, religious, historical, social, economic, political, as well as environmental, considerations all enter into the picture. The non-environmental factors at times and places indeed may be the dominating ones in explaining many of the observed economic facts. Race and creed and custom may and do modify the ways in which even such factors of environment as are controlling operate. The geographer's peculiar function, however, is to explain, as far as he may, the differences in the economic life and institutions that exist between regions and to determine the part that environmental forces have exerted—whether their effects be great or small—in producing those differences. As Professor J. Russell Smith states it, the economic geographer "deals with human activities as affected by the earth rather than with parts of the earth as they affect human activities."¹ The economic adjustments in any area may be close or remote; the fact of importance is to determine the adjustments that are being made and to discover, for any given region, the best adjustments that could be made, under the conditions of the time, for the fullest utilization of the region.

The basic concept on which the work of the geographer rests is this:

¹*Industrial and Commercial Geography*, preface to first edition.

the natural environment, while not the only factor, is one of the chief molding forces (if not the chief force) in man's economic life. Man is continually adjusting himself to his environment. Since man's economic life rests from its very nature upon securing a living from the earth, the best type of economic life is the one that is best adjusted to the physical environment. This does not imply that it should not also be well adjusted to the social and other conditions of the region. The natural environment, however, sets the stage. It furnishes the scenery. Climate and soil and topography and location are persistent and abiding. To them ultimately adjustments must be made, both in *kind* of development and in the *degree* of development. For a region is not to be measured, geographically nor economically, solely in terms of its resources; but also in terms of its fitness for supporting a people with the energy and initiative necessary to utilize the resources to best advantage.

Not only are physical factors fundamental to economic life; they are of increasing importance as the world develops and economic life becomes more complex. With the increase of world population, crowding on the means of subsistence, and with agriculture becoming more complex as it becomes more scientific, nicer and finer adjustments of all kinds need to be made if the earth is to yield its maximum of food and raw materials. The best utilization of the land is, in part, a geographic problem. The best utilization of labor and management is also, apparently, in part a geographic problem.

In manufacturing industries the same is true. In the midst of competition, domestic and international, whatever contributes to the efficiencies and economies of manufacturing needs now to be more carefully considered. For example, the geographic location of a plant assumes an importance now that did not obtain when competition was less keen and almost any site would do. Location must be made with greatest care in reference to power, raw materials, markets, and climate. The exact determination of the effects of climate upon the energy and initiative of factory operatives and management was never so much needed as today. A wrong climatic location may overcome all other apparent advantages and lead to industrial failure. The engineer today locates his hydroelectric plant after giving more careful considerations than ever before to topography, to geology, to forest cover, to rainfall, to run-off, to evaporation, and to all the other factors, both physical and economic, that make for success or failure to the enterprise.

Man's greatest concern is not in "conquering nature," but in adjusting his life to nature. Herein lies one of the great tasks before science—how to make the earth and its inhabitants produce to best advantage to support its growing population and to make possible a rising standard of living for all. A better understanding of the nature and extent of the influences of different types of environment on production and on producers is certainly one of the necessary steps to attain this result.

If the natural geographic factors are among the controlling forces in the economic life of man, we should expect to find that similar types of en-

vironment, under similar stages of development, would show similar types of economic adjustments. Or putting it in another way, from a given combination of environmental conditions the general type and potential characteristics of certain phases of the region's economic life should be indicated. There are many cases that indicate this may be the situation, although much more work must be done in the study of regions before we can speak with greater confidence.

Perhaps one of the best known and simplest illustrations of this is to be seen in the economic life of the so-called Mediterranean type of geographic environment. The Mediterranean region of Southern Europe, as we all well know, is characterized by a climate whose winters are cool and with moderate rainfall, and whose summers are long, hot, and dry. The topography of Mediterranean lands in general is rugged, with intermountain valleys, narrow coast plains and deltas, interior plateaus and mountains. In response to these conditions, a distinct type of agricultural and pastoral life has developed, remarkably adapted to the climatic and topographic conditions. Winter grains—wheat and barley—that grow in the cool moist winter months and are harvested in the dry spring; drought-resisting tree crops as the vine and the olive; irrigation crops—fruits and alfalfa on the alluvial fans; large areas of lands too dry and too rugged for tilled agriculture utilized for grazing, and grazing especially of the poor land animals—the goat and the donkey. Its industries likewise reflect the environment—dried fruits, especially the raisin, the fig and the date, the prune and the apricot; the fruit and vegetable canning industry; the tourist industry; and the moving picture industry.

It is significant that the other widely separated sections of the earth that possess similar Mediterranean types of environment have developed similar methods of wealth production, even under different racial and social and political and historical backgrounds. Southern California is duplicating in its broad outlines the type of agricultural life found on the shores of the Mediterranean. In detail it differs; but the environment also differs in detail and the region is economically much younger. Differences in other factors, such as location, differences in population density, in racial elements, and so on, account for many of these differences, but they do not destroy the general similarity. Strikingly enough, the same features appear in the Central Valley of Chile, where the same Mediterranean type of environment exists, and also in the Cape Provinces of South Africa, and in the extreme south of Australia. And the more these regions develop the more closely do they come to the common type. The geographic type is distinct; the economic type is likewise distinct and is responding in similar ways to the similar geographic facts. We can speak safely of a "Mediterranean type of agricultural life." Clearly its basis rests on the physical facts of geography.

Nor is this illustration unique. Taking another type of environment as illustrated by the cool wet summers and mild but raw wet and stormy winters of Northwest Europe (Scotland and Scandinavia), the chief characteristics of its economic life reappears—or are reappearing as economic

life develops—in regions of similar physical type on the Pacific Coast, in Washington, British Columbia, and southern Alaska, in south Chile, in Tasmania, and in southern New Zealand.

In rugged interior regions, where transportation is difficult and expensive, invariably we find the money crops developed are of small bulk and high value; corn whiskey in the Kentucky Mountains; opium in Northwest China; coffee on the plateaus of Columbia; cocaine on the rugged eastern slopes of the Andes in Peru and Bolivia; butter and cheese in Siberia and New Zealand and Switzerland; tea in Central Japan and in the Assam Hills; these are but a few instances. So universally is this the rule that a general principle may be developed to the effect that the developed export resources of remote and rugged regions consist of high-valued, low-bulk goods, and the relation of value to bulk is roughly proportional to the degree of inaccessibility of the region.

These are all obvious and well-known illustrations among many that could be cited. They are suggestive of the influence of environment. But the student soon discovers that human activities are not always so closely related to the natural regions into which the earth may be divided, and that many economic features are not so obviously tied up to climate or topography or location or soils. Physical environment frequently does not appear to be the most potent force in shaping the existing life of a group. Migratory peoples bring with them into a newly-settled region, for example, methods of agriculture well adapted to the regions they have left, but ill adapted to the new regions to which they have come. It may be that for long periods the methods employed in the new environment reflect the method developed in the old environment and are ill adapted to the new. The farming methods of humid Europe and eastern United States first employed in western United States finally gave way, after much suffering and loss, to the conditions of aridity west of the 100th Meridian and a new and different type of agriculture has developed.

It is the task of the geographer to describe the region, establish the relations that do exist between the environmental facts and the economic, show how and to what extent other factors have modified the geographic, or the geographic modified the other factors that are also at work in shaping the life of the region. Particularly is it of great practical importance, having established principles of relationships, to point out how far the economic life of the region is failing to take full advantage of the natural opportunities; or to show, for an undeveloped region, what the probable or possible opportunities are for future development.

This type of regional economic geography can be of great value to the economist, to the historian, to the political scientist, to business, and to society in general. To describe scientifically the "economic landscape" and to explain and understand it, to develop principles by which one may soundly interpret the possibilities of a region and its limitations, as a place in which man can live and make a living is the distinctive field of the economic geographer.

HELEN M. STRONG.—The value of the foreign trade of the United States in 1924 was eight times that of fifty years ago, though the population was only three times as large. Eight billion dollars is a considerable investment for one year in the foreign trade enterprise, \$4,600,000,000 being exports, and \$3,600,000,000, imports. Among the nations of the world only the United Kingdom exceeds this foreign trade budget.

In its attitude toward foreign trade, however, the United States differs markedly from its English neighbor. In spite of the great value of its foreign trade, the domestic market is worth yet more to the American producer, for he exports his goods principally in order to be able to import raw materials for his factories and luxuries for his own use. This country is, and will be for some years to come, so nearly self-sustaining that foreign trade will not be to the people a question of food and very existence, though it must necessarily be of great importance in relation to the business prosperity of the United States.

This enormous increase in foreign trade has grown out of the economic development of the country founded, consciously or unconsciously, upon the utilization of its natural resources and the relation of geographic and economic elements to similar factors in other lands. When the population of this country was small, its farm area large, and its manufacturing industry small in proportion to domestic needs, more than half its exports were crude foodstuffs or other crude products, but in 1924 these formed only about a quarter of all exports, while manufactured products of all kinds had increased to more than 60 per cent of all exports. The relative position of these two groups among imports into the United States presents a complement to the export movement, and just as directly grows out of economic and geographic conditions within the American commonwealth and the nations from whom it buys. In 1875 approximately 30 per cent of our imports were crude materials and crude foodstuffs, nearly 70 per cent being manufactured goods, but in 1924 nearly half our imports belonged to the former groups, by far the larger share being crude materials for use in manufacture.

Thus, it is apparent that the foreign trade of the United States is expanding vigorously, and at the same time, that the balance is shifting in favor of manufactured goods among exports and to crude products in imports. Another transition related closely to the future commercial development of the United States also is taking place in regional distribution of its foreign trade. About the same proportion belongs to North America and South America as before 1914, but there is a significant change in that for Europe and Asia. Before the war 62 per cent of our exports and 50 per cent of our imports were credited to Europe. In 1924, however, these proportions were 53 and 30 per cent respectively. Asia accounted for only 6 per cent of our exports and 15 per cent of our imports before 1914, but in 1924, 11 per cent of our exports and 26 per cent of our imports belonged to Asia. Direct shipping connections and larger volume of trade with Asia largely are responsible for this growing importance. These shifts mean broadly a more even regional distribution of the commercial

interests of the United States throughout the world. It is clearly evident that these trends have not occurred by chance, but have evolved naturally from interaction of basic factors in American trade, which will be potent elements in shaping future commercial developments. Not all nations possess the same natural resources as to kind and quantity, neither are they in the same stage of economic development. Herein exist, in some cases, conditions which will foster continuous exchange and in others, a relatively temporary mutual dependence.

Natural resources of a permanent or renewable nature will favor constant commerce between regions having contrasting but complementary permanent or renewable resources. The more important natural resources of such a character in the United States are location with reference to other regions, area, climate, land surface, soil, and water power. Its mineral resources will last a longer or shorter time as the case may be.

Of all the great producing areas, and in fact, of all the great nations, the United States is the only one whose domain extends from ocean to ocean, affording an outlook toward both the densely peopled manufacturing lands of Europe, and the yet more thickly inhabited areas of China, Japan, and India, where manufacturing has begun to create new and larger demands with greater purchasing power for some of the people. The United States also is fortunate in being situated north of the equator on an east-west route connecting it with most of the world's land areas. Fortunately, its breadth is not as great as that across Europe and Asia, and, though large in extent, the area yet is favorable for transportation of commodities from coast to coast by rail or via Panama. No difficult barren deserts and mountains bar movement from coast to coast as is the case with Eurasia.

The larger area of the United States gives it extensive crop lands, with more probability of varied and abundant mineral deposits, and greater variety of climates, than is the case with smaller countries.

The climates of England, the Mediterranean, Russia, China, Japan, the Argentine, Chile, Southern Brazil, and southern Australia are all found in the United States. Manifestly climate makes for similarity of products between these countries and the United States, and exchange must be on the basis either of contrast in other natural resources or in stage or kind of economic development. Only two kinds of climate are lacking in the United States—polar and tropical. Since at present, agriculture is not especially flourishing around the poles, equatorial lands are those which grow the only commercial crops which cannot be raised in the United States, as far as climate is concerned. Rubber, coffee, coconuts, jute, cacao or crude cocoa can be raised only where there is no frost, while sugar can be grown extensively and gives yields only with twelve months' growing season. These six commodities alone made up more than one-fourth of all imports in 1924, while tropical agricultural products as a whole amounted to about \$2,000,000,000 or about half all imports. Here is a basis for permanent trade due to permanent climatic differences, for within historic time climates do not change. Difference in time of occurrence of

seasons between the northern and southern hemispheres also affords a background for permanent trade, as it enables a year-round supply of products to be maintained in the markets of the United States by importing from countries south of the equator.

Surface and soil provide a valuable working capital for production of goods. The former is a permanent resource, while the fertility of the soil is renewable and therefore permanent if proper methods of cultivation are used. Another extremely valuable resource belonging to the United States is its large area of level fertile land, exceeded in extent by that of no other agricultural region. This makes possible the large-scale production of cotton, wheat, corn, and hogs. More than one-third in value of all exports from the United States, amounting in value to more than \$1,600,000,000, is made up of these products.

If our watersheds are protected properly, hydroelectric power will be a permanent resource, important for transportation and manufactures. Power at moderate cost is an important aspect in enabling our manufactured goods to compete in foreign markets.

The mineral resources of the United States are an outstanding element both in its internal economic life and in its foreign trade. The American deposits of coal, iron, copper, petroleum, and phosphate form a significant part of the world's supply of these resources. About 55 per cent of the world's copper and iron is produced in the United States, and 70 per cent of the petroleum, while this country possesses half the known coal of the world. In addition to being extensive, most of these deposits are located favorably for utilization. They occur in large units, situated nearer the surface than many similar deposits in foreign countries. Exports of these commodities themselves and products manufactured from them make up more than one-fourth of American exports. The significance of coal power in manufacturing goods for export further indicates the value of these mineral resources in foreign trade. The large size of the deposits of American coal, located near the surface, with thick enough veins for machine mining, as well as their high quality, gives the United States a competing advantage over other countries, such as Britain, Germany, and France. In the case of countries possessing small or low grade deposits of coal, the United States will have an advantage for some time to come due to difference in economic development, and hence difference in products. Argentina, Chile, and Russia are such countries. Furthermore, in tropical countries, climate is not conducive to manufacturing, which makes them markets for exports of manufactured goods. From the foregoing, it may be seen that considerably more than half the export trade, and the same proportion of import trade, is based on permanent or relatively permanent differences in natural resources between the United States and the foreign countries with which it trades.

Due to one cause or another, aside from relation to natural resources, economic development differs in degree from country to country. Manufacturing industry could expand in this country because of the abundance of power and raw materials. Both agriculture and manufacturing, how-

ever, received their initial impetus from large demands in the home market. With the opening of the canals in the United States in the 1820's and 1830's, and immediately afterwards the railroads, the vast level fertile prairies were linked with foreign markets, and began to feed the manufacturing peoples of northwest Europe. Development of these same middle west lands offered a compelling domestic market for American manufacturing activities, which responded vigorously to this demand that has absorbed most of their attention until the last decade or two.

This country has experienced the same process of evolution in manufacturing as came earlier to European countries, so that today the differences in products are not so great as in earlier years. However, in comparison with other regions such as those in the Far East and in Southern Brazil, the United States is sufficiently ahead in industrial development to offer a basis of exchange with these people having similar climates hence similar needs and tastes to those in the United States.

A summary view of the world trade situation reveals one outstanding fact growing out of the natural resources and economic development of the regions concerned. Foreign trade, to function most profitably and efficiently for all concerned, must become a complementary, co-operative world enterprise between nations, not a war of monopolistic competition. The United States will consume more of its own food products and manufacture the goods for which its raw materials give it economic advantage, while its permanent trade will be with regions of different natural resources which require its manufactured articles, and with areas providing commodities which cannot be produced in the United States. Due to the high standard of living here, these will include both raw materials for factories and luxuries in the way of food, clothing, and equipment of various kinds. Our manufactured exports will pay for these imports, while we will, to a large extent, provide our own necessities, as well as some luxuries in the way of food, clothing, and shelter.

E. DANA DURAND.—There exists in England and Germany widespread pessimism as to the ability of these countries to recover their position in export trade, especially in competition with the United States. Current statistics lend considerable support to this attitude. When price changes are eliminated, the United Kingdom is found to be exporting only about three-fourths as much as in 1913 and were it not for the good fortune that the prices of her exports have risen much more than those of her imports, the trade balance would be impossibly heavy against her. The position of Germany is even worse and her poor showing is only partly attributable to her peculiar international complications and to the recent currency demoralization. Moreover recovery is just now proceeding but slowly. British exports for 1925 will hardly equal those of 1924, and German exports, despite more favorable international relations, will show only a slight increase.

International trade is due primarily to differences among the several countries (1) in resources, or (2) in the degree of industrial development

and efficiency, or (3) in the direction of that development. Were the people of all countries equally capable of conducting all branches of production, practically the only trade would be that resulting from the fact that a given country possesses some resource which another lacks and vice versa. A large proportion of trade, however, consists of the exchange of goods requiring high skill of labor and management against foodstuffs and raw materials from countries which are less advanced industrially either because of newness or of some inherent or historically developed backwardness of the people.

Again through historical causes and more or less independently of distribution of resources a given country may have specialized in some field of manufacture leaving it to some other country to specialize in another.

The great reduction of transportation costs, during the past century, and especially the cheapness of ocean as compared with rail transportation, has rendered the difficulty of commerce between widely separated countries (especially in products of comparatively high unit value) far less than formerly, and has thus increased the effectiveness of these three factors in producing trade.

The great volume of trade which the United Kingdom and Germany possessed before the war was attributable on the one hand to their lack of several important natural resources and on the other to their high development in industrial efficiency and to the specialization of each in certain lines. The possession of abundant coal and iron—products lacking in a good many countries—constitutes almost their only purely physical basis for export trade. While both have good agricultural land and climate, they could not possibly have supported so large a population except by importing heavily of foodstuffs and agricultural raw materials, and paying for these imports by manufactured articles which, save for superior efficiency and specialization, they could not have marketed.

The present demoralization of British and German trade is due partly to a decline in their own productive capacity resulting from the war, and partly to difficulty in finding markets. The first, time is tending to correct; in any case it is not part of the purpose of this paper to consider that aspect. Suffice it to say that there is perhaps a tendency in England and Germany to overemphasize conditions in foreign markets and American competition and to underemphasize the internal demoralization of industry.

The markets for the exports of England and Germany may be roughly divided into three groups: first, European countries; second, the United States; and third, all other countries. The existence of trade between England and Germany on the one hand, and other European countries on the other is the resultant of all three of the basic factors above mentioned as causing trade, these factors appearing, of course, in varying proportions in different cases. The main point as to the future of this trade is that the only important respect (apart from Germany's altered boundaries and apart from artificial trade restrictions) in which the situation now differs from that before the war is the diminution in Europe's buying

power resulting from the war and from the Russian revolution. The same natural conditions which affected the export from England and Germany to Europe remain substantially unchanged. The future of this trade will depend greatly on the pace of general economic recovery in Europe. At the present moment conditions appear more favorable for such recovery than at any time since the war.

The export trade of England and Germany with the United States, formerly due chiefly to the newness of this country, has more recently rested largely on specialization of industry. The position of this country as a market for England and Germany, apart from changes in our tariff which lie outside of the scope of this paper, has no doubt been altered somewhat by the war. The temporary shutting off of European sources during the war caused expansion in this country of industries supplying goods formerly imported largely from them—notably chemicals from Germany and fine textiles from England. The lower wages in England and Germany and their long technical experience are causing a very considerable resumption in the export of their specialties to the United States. Our imports from the United Kingdom in 1925 are likely to reach over \$400,000,000 as against an average of \$279,000,000 for the five pre-war years. This increase is probably not much less than the advance in prices so that quantitatively our imports are not much below the pre-war figure. Imports from Germany will be about \$150,000,000 against the pre-war average \$176,000,000, but the decrease is much less due to the shutting off of markets here than to the demoralization of German production. For many years before the war our imports from England and Germany had increased steadily despite the still more rapid growth of manufactures in this country. We took from England 80, and from Germany 60 per cent more in 1914 (fiscal year) than in 1904. Is it not likely that apart from possible artificial factors this movement will be resumed, perhaps at a somewhat slackened pace, despite the fillip which the war gave to competing industries in this country? Certainly the steady growth of wealth in the United States tends to make this country, at the same time that it gains in efficiency as a competitor in world trade, a bigger market for luxury goods and for any class of goods which foreign countries can produce either absolutely, or relatively, more efficiently than ourselves.

The export trade of England and Germany to countries outside Europe and the United States is largely due to the comparative absence of manufacturing industry in those countries, most of which are either newly settled or backward. Much of the fear of the Germans and the English for the future of their trade arises from the assumption that these countries will hereafter require fewer manufactured goods, or at least that their imports of these will grow but slowly and that the export industries of the United States will more than absorb any increase. It is pointed out that such countries are themselves gradually developing in manufacturing industry, and that in fact the leading industrial nations have been themselves constantly contributing to that development by investments there in mining, manufacturing, and transportation enterprises. Is it not prob-

able that this development will continue until there is little demand on the part of such countries for imports of manufactures?

The answer, I believe, is in the negative. It will require an enormously long period for the more backward peoples to approach the efficiency in industry possessed by Western Europe and the United States. Likewise it will be no little time before those newer countries which are being settled by more advanced peoples will find it profitable to manufacture anything like all of the goods which their resources permit them to manufacture. So long as agricultural land and forests are abundant it pays best to produce those things in which nature can do the largest share of the work.

Meantime the same causes which are tending to increase manufacturing industry in the newer and the more backward regions are also tending to develop their natural resources, to increase their production of foodstuffs and raw materials, and to improve their transportation facilities. Consequently, they tend to have more and more with which they can buy manufactured goods. Increase of consumption of manufactured articles in them may be quite as rapid as increase in the local production of such articles; even if it is less rapid there may still be for a very long time an absolute increase as distinguished from a relative increase in the volume of imports of manufactures.

The possibilities of the situation may be illustrated by what is happening in our own country. Our imports of manufactures have continued to increase despite the growth of our factories. Allowing for price changes they are at least twice as great as thirty years ago. The relations among the different sections within the country also illustrate the point. Manufactures are steadily being developed in the more newly settled sections and in the South. Nevertheless the older manufacturing states find their manufacturing industries also steadily growing. Their share in the manufacturing output of the country is diminishing, but the absolute output is increasing. Exactly the same thing is happening with respect to the relations of Canada, Australia, Argentina, Japan, China, the East Indies and various other countries, with the older centers of industry.

With the comparative cheapness of water transportation, Western European countries are in no worse position with respect to transportation costs, in their relations with countries many thousand of miles away, than the Eastern states of our own country are with respect to the more distant parts of the United States.

For a long period prior to the war the imports of the newer and more backward countries had been rapidly increasing and despite the setback caused by the war the imports of many of them in recent years have been much larger than immediately before the war. While data are often not available to distinguish the various classes of imports in the case of most of the countries, and while part of the increase in total imports is due to greater takings of raw materials and foodstuffs, there is reason to believe that the rate of increase in the importation of manufactured goods into countries of this character has been quite as rapid as that in their total imports. The imports of North American countries other than the United

States amounted to \$852,000,000 in 1911 and to \$1,546,000,000 in 1923, an increase unquestionably greater than the advance in prices. The corresponding figures for Asiatic countries are \$1,891,000,000 and \$3,969,000,000, considerably more than doubling. For Oceania they are \$423,000,000 and \$838,000,000, and for Africa \$683,000,000 and \$1,056,000,000. Argentina's imports increased 75 per cent in value during the same period, and those of the Caribbean countries of South America likewise increased heavily.

As regards the effect of the competition of the United States on the future ability of England and Germany to export, there is, of course, little doubt that this country will continue to increase steadily in the exportation of manufactured goods. It is quite likely that this increase will be at a more rapid rate than that of the importation of manufactured goods in world markets and that consequently the share of the English and Germans in supplying such goods will diminish. It by no means follows, however, that in absolute amount their exports of such goods must decline, or even remain stationary.

It should be borne in mind that this relative gain of the United States in supplying world markets for manufactured goods is by no means a new thing, and that despite it British and German exports of such goods rapidly increased until the world war came with its demoralizing effect on their industry. United States exports of manufactured goods (semi-manufactures and finished products other than foodstuffs) increased by 155 per cent in dollar value between 1901 and 1913. Notwithstanding this greater competition German exports of all classes combined (consisting chiefly of manufactured goods) increased during the same period by 128 per cent and British exports by 88 per cent.

It is a mistaken opinion sometimes expressed by our European competitors that American exports of manufactures have increased more rapidly during the past decade than before, on account of the shutting off of European exports during the war. This is by no means the case. Our exports of manufactured goods in 1925 were about 110 per cent greater in dollar value than in 1913, but approximately half of this increase was attributable to higher prices, so that quantitatively the increase was much less rapid than during the twelve years preceding 1913. The truth is, of course, that the rate of growth of demand in world markets for manufactured goods was greatly checked by the war, not only directly by the reduced buying capacity of the warring countries for such goods, but by the reduced buying capacity of neutral countries resulting from their inability to export as much as usual to the warring countries.

The rate of increase for the near future in the capacity of the world to absorb exports of manufactures depends very greatly on the rate of recovery of Europe's buying power. The more Europe can afford to buy from other continents of foodstuffs and raw materials, the more those continents can buy of manufactured goods. Should the rate of increase in world imports of manufactured goods again attain that before the war,

room would be made for a material increase not only in American exports but also in those from the United Kingdom and Germany.

The fear of the Germans and the English of American competition is partly based on mistaken economic ideas. There is a tendency to assume that world consumptive capacity is narrowly limited and that increase in the exports of one country must necessarily mean decrease in those of others. In the long run, consumption is limited only by production. The demand for any given class of articles, especially those of a less advanced character, may in fact be limited, but there is always room for more of the more elaborate goods and for new classes of goods, provided buying power exists. Increased competition from the United States in certain lines might of course compel European competitors to shift to other lines, a process involving temporary hardship.

Another error in principle is involved in the assumption that if the United States can produce more efficiently than England and Germany it will necessarily drive them out of world markets. The exports of any country are limited by its need for imports. A country self-sufficient in every respect, able to produce everything as cheaply as it could be produced anywhere in the world, would have no foreign trade at all, no matter how rich or efficient it might be. The degree of self-sufficiency of the United States is extraordinarily high. In striking contrast with Western European countries we import mostly things with which we could dispense altogether or in considerable part. It is only because of our great wealth that we import anything like as much as we do. Even as it is, imports, and correspondingly exports, constitute a far smaller proportion of our production than is the case with Western European countries.

No doubt if the United States continues to increase in wealth its people will desire to use part of their additional income in expanding purchases of exotic foodstuffs and raw materials, although there is a disposition to undertake the production in our own country of various articles now obtainable only from abroad. The desire to increase imports, however, will be nowhere near as imperative as that of the Western European countries which are dependent on the outside world for much that is basically necessary.

Another factor in creating temporarily a desire for increased export is investment in foreign countries, although of course the ultimate object is income from these investments which must take the form of imports. Just now the United States is making heavy placements of capital abroad which carry with them a large volume of exports. Investment abroad, however, is constantly subject to the strong competition of opportunities for investment at home.

NATIONAL AGRICULTURAL POLICY

By JOHN D. BLACK

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A year ago the American Farm Economic Association made national agricultural policy the central theme of its program. In casting about for material to present to the general association this year, it seemed to us of the agricultural group that the best thing that we could do would be to bring together the results of that discussion and get the reaction of the general group to it. The term *policy* implies a more or less carefully considered and fundamental course of action followed consistently for a period of years. Our discussion will therefore be from a rather long-time point of view. It will have some relation of course to the impending legislation in Congress and the present political situation in the United States, but only incidentally.

There is question, of course, whether we are really ready for a definite agricultural policy at this time. Policy involves settledness of ideas; and settledness of ideas involves settledness of a country itself and its people. Perhaps we are too new a people really to have a settled agricultural policy. In any case, it is not something which a few people can decide and impose upon the rest. It is something which a people themselves must grow into. But growth requires nourishment. The growth-substances of true national policies are free discussion and education. If we economists of today have any settled ideas on the subject, we owe it to the public to speak out with them and thus make our contribution to the discussion. If we still disagree as to other phases of it, then we owe it to the public to keep on discussing these among ourselves. Some sort of policy is actually in the making. It will be made either with or without us. No one of us nor all of us together may feel equal to the task of saying what such a policy shall be; but surely, if our study of economics all these years has accomplished anything at all, we must have some contribution to make to it, and if we have, we owe it to the public to make it.

To discuss in detail in one session all the phases of national agricultural policy would be a hopeless undertaking. The particular point of departure chosen for this program is embodied in the following remark made by the late Secretary Wallace:

"During the next twenty years, either consciously or unconsciously, the United States will adopt fairly definite policies as to industry and agriculture. We are approaching that period which comes in the life of every nation when we must determine whether we shall strive for a well-rounded, self-sustaining national life in which there shall be a fair balance between

industry and agriculture or whether, as have so many nations in the past, we shall sacrifice our agriculture for the building of cities."

Secretary Wallace felt very distinctly in the latter days of his administration that agriculture in the United States was already in the foreshadow of an eclipse, and that only determined effort on the part of all public agencies could save it from ultimately passing fully under the shadow.

Secretary Wallace was not alone in this feeling. Senator Capper, for example, speaks in his *The Agricultural Bloc* of the "impending decline of agriculture, such as occurred in nearly every great civilization that has disappeared," and of a "new era in our national history in which we cannot allow the balance of real production which comes only from the land to get out of balance with dependent manufacturing industries, commerce, banking, and government," also of the "continued growth of commercial and industrial America, if accomplished by reaching out to distant countries for food," as surely to be "accompanied by the decline of the American farmer to a lower grade of living. In most other countries," he goes on to say, "the farmers have been held in a peasant class, subservient to a ruling commercial class."

That term "peasant" has become the byword of the present agricultural situation. I do not know who first introduced it into the discussion—perhaps it was introduced at a score of different places—but whenever one goes among the farmers today, he is told that the farmers of the United States are fast sinking into peasanthood, like the farmers of Europe. "We shall not be peasants," has almost become the word of the hour in the rural districts of the United States.

The first question to be answered, of course, is whether or not this urbanization of our country really needs to be checked. This involves considering the causes and consequences of it. If it needs to be checked, then the ways and means must be examined.

The census of 1920 showed only 48.6 per cent of the people of the United States living in rural territory and cities and villages of less than 2500 inhabitants. In 1850, the comparable figure was 80 per cent. The shift has therefore been at the average rate of 4.5 per cent per decade. A closer examination of the figures shows that for the first forty years of this period, the shift averaged only 4.0 per decade, as compared with 5.1 for the last thirty years, and 5.7 for the last twenty years.¹ Thus the trend seems to be accelerating. The United States Department of Agriculture's figures on annual rural population movements, based upon rather meager sampling, show a

¹All citations from Chapter II, *The Agricultural Bloc*.

²1910 Census, Vol. I, p. 34; 1920 Census, Vol. II, p. 79.

net increase in rural population for the five years from 1920 to 1924 of only 400,000, and an actual loss of over 300,000 for the years 1922 to 1924.¹ Hence the shift has probably been still more accelerated since 1920.²

This account of the urbanization of the United States takes no account of geographical differences. Some of our Eastern states average as many people to the square mile as Germany and France, and almost as many as Belgium and England. Industrialization has been going on more rapidly in recent years, however, in the East Central States than in the North and Middle Atlantic States. Michigan led all other states in the last decade. Some portions of the South are also industrializing rapidly.

I thought it worth while on this point to take a poll of opinions. Do people generally agree with Secretary Wallace and Senator Capper? Accordingly I wrote to a considerable number of editors of farm papers, presidents and deans of agricultural colleges, presidents of farm organizations, and leaders in public and political thought, asking them *whether or not* the present trend should be checked, and why. Only two editors of farm papers out of fifteen thought that something should be done to check this trend. There were two more, however, who thought that the best people were leaving the farms and that something should be done to check this.

Only one agricultural college president or dean out of thirty-five who wrote me gave a clear affirmative answer to this question, and he did it in these words: "As a matter of national policy I think something should be done to check this trend. In other words, I think that the welfare of the nation depends upon a continued balance between urban and rural population. A study of economics, political science, history, and sociology of such European countries as Belgium, England, and others, convinces me that the best type of national civilization can be maintained only by maintaining a happy and prosperous rural population properly proportioned to the urban population." There was one other whose answer implied a "yes." There were eight of this group who believed that the quality of our agriculture is suffering under the process, and at least five of these apparently felt that this should be stopped. One described it as "economically sound," but "regrettable from a sociological viewpoint," and "deplorable" from "purely social reasons." Two of this group suggested the interesting point of view that "peasanthood" is more a *human*

¹1925 Report of the Secretary of Agriculture, pp. 32-3.

²A better measure of distribution between rural and urban is percentage of persons gainfully employed in agriculture and industry. But this measure gives the same rate of shift, 4.5 per cent per decade, as the above, from 44.4 per cent in 1880 to 26.3 per cent in 1920.

than an economic condition, that if we keep on selecting out our most efficient and most enterprising for the city, that we will have left on our farms in due time a class of people who are capable of earning only a poor living in any line of work, and who will come more or less contentedly to live the life of an inferior class. Such a description fits nearly enough the condition of our farm people in some sections of the South and East, in the case of the East at least as a concomitant of our rural depopulation, to give us reason to pause and consider the idea. Surely the draining off of our most efficient farm people, if it is occurring, and if it continues, will eventually give us a farming class of reduced earning power and relatively lower standards of living.

The only statement I can find on the subject in President Coolidge's various addresses on agriculture is the following: "Our country must not be given up entirely to industrial development. It must seek a well rounded-out, complete and independent existence. A country without agriculture is shorn of half its strength and necessarily vulnerable."

This statement suggests that the President would favor checking urbanization the moment it threatens to get to the point where we are no longer able to feed ourselves. Whether he favors checking it now, can not be told. On other occasions he has spoken in favor of national agricultural self-sufficiency. So have Secretary Hoover and Secretary Jardine. But national agricultural self-sufficiency probably means in their minds, for the present, merely the cutting down of our surpluses of wheat and corn and cotton, and growing more flax and wool and peanuts. The 1925 Report of Secretary Jardine speaks of a "natural balance of population between the farm and the country" which should not be violently disturbed.¹ Assuming that he is responsible for this statement, it suggests that he has no interest in checking urbanization as such.

These men were also asked to give the reasons for this urbanization. They gave a list of twelve reasons, all of them sound. The very completeness of the list indicates that these men are thinking well on the subject. Hence it is a matter of grave concern that they so generally gave as their major reason the greater rewards and opportunities offered by the city, and that another large group spoke of the better living advantages in the city. The remaining reasons given were all really included in the first one—they really explain why the city has been able to offer greater rewards and opportunities.

Since these men see in such causes as above listed the reasons for the cityward drift and the urbanization of the country, they therefore

¹Livestock International Exposition, Dec., 1924.

²Page 34.

look upon it as "economically sound." To check it would mean still greater discrepancy between the city and country rewards. Some go so far as to say that it can not be checked, that it represents an economic force which it would be useless to oppose. A number of the correspondents were even a trifle exasperated by the question. Why should anybody want to stand in the way of an equalization process of this kind? Such a position represents a degree of faith in the efficacy of our competitive system which economists, who ought to know the most about it, would hasten to disclaim. As will appear later, it is easy to conceive of a different working of our so-called competitive system that would give us more farmers and better rewards at the same time.

Let us consider for a moment some of the usual arguments for checking urbanization. First, is the belief that it is taking the best of our country people to the city. Dr. Carl Taylor, in the paper that follows this, accepts this belief as well founded. It is true, we have little actual data to prove it. There is surely clear evidence in some rural sections, however, that the level of productive efficiency and enterprise has been sinking surely. Common observation, and the judgments of men such as my correspondents from all over the nation, cannot be altogether mistaken in such a matter. If it is occurring, it cannot be allowed to continue, for in the end it would give us a decadent agriculture; and if this kind of selection is a necessary part of urbanization, then it is an almost conclusive argument against it. But surely it is not a necessary part of it. Surely we can still have urbanization and maintain and even improve the quality of our rural folk both absolutely and relatively. The ways and means of this will be discussed later.

There seems to be a tendency in many people's minds to confuse the quantity of agriculture with its quality. They think that a relatively unimportant agriculture must mean a poor agriculture. England is the best example of this. Just because her agriculture has fallen far behind her industries and commerce, may, in fact, even have declined absolutely as well as relatively, many people are disposed to assume that her agriculture is poor and her rural folk degenerate. Yet where on the continent of Europe will one find farmers as prosperous and independent as those of England in the last twenty-five years.¹ The time may come in the United States when, as Mr. Henry A. Wallace predicts, only one-fourth of our people will live in the country. But there is nothing in this fact to indicate that this one-fourth will not be more prosperous and of better quality than our present one-half.

¹Perhaps her farm labor is another sort of story.

Then there is the political point of view, which is to the effect that the manufacturing and commercial classes will presently out-vote the farmers, and manage affairs to the detriment of the farmers. The first answer to that question is that this is being done right now, but the reason for it is that the farmers are helping them do it. Numbers do not count unless they are mobilized and intelligently led. There never will be a time when the political strength of the nation will be divided into two camps, the farmers against the rest of the nation. The conflict is always between a large number of interests, and in this conflict, the farmer interest will always be a powerful one if it is organized and knows what it wants and ought to have.

If a second answer is needed to this political supremacy argument, it is that the farmers are going to be in the minority in the country anyway, no matter what they do—urbanization cannot possibly be checked enough to save them—and that therefore they must learn to operate as a minority group.

Then there is the self-sufficiency argument—that we must be able to feed and clothe our people ourselves in case of war or other emergency, and hence must keep urbanization from going too far. I think it can be said without fear of contradiction that there is little likelihood of this nation's acquiring an urban population so large that our vast fertile areas cannot be made to feed and clothe them abundantly in time of war. Consider the expansion that took place in one year of the last war. The President's plea for a nation agriculturally "independent" is not even sound sentimentally.

We have been told many times that a farming population is necessary to keep our Ship of State from grounding upon the rocks of industrial radicalism. Walt Mason once pictured the state of Iowa in a cartoon as an old farm nag plodding steadily up the road and wearing a very large pair of blinders. Recent events would seem to indicate that Iowa farmers are no longer wearing blinders. The time will soon come when our farmers will be as accessible to new ideas as any group in the nation. That is exactly what rural mail delivery, automobiles, and the radio mean to our country people. The commercialization of agriculture points in the same direction. Nevertheless, ownership of land, like ownership of any other property, does make for stability in a people, and a nation half of farmers is likely to ride on a more even keel than a nation one-fifth of farmers.

Dr. Taylor will also present to you the analysis of certain other social and also cultural advantages of a nation not too greatly urbanized. The country may not have any advantage over the city at present in the matter of health, but it is capable of offering greater advantages. The same is true in the matter of education and rearing

of children generally. The country, if provided with all the artificial advantages which are its due, is surely a better place in which to live than the city, and a better place in which to rear our future citizens.

There is enough validity to these arguments to make a nation want to keep itself predominantly rural if it is possible. Any checking of urbanization, therefore, which can be accomplished without sacrifice of the economic well-being of either city people or country people, should surely be undertaken, and undertaken at once. We can even go a little further and say that some measure of economic advantage should be sacrificed in favor of keeping a country as rural as possible. In other words, a nation can afford even to burden the city industries a little and subsidize rural life.

It will be interesting, therefore, to look over our agricultural policy in the past and see what its attitude toward agriculture has been. Following are summarized the results obtained from scanning through our history for the past seventy-five years from this point of view, and in particular, scanning through the reports of all the commissioners and secretaries of agriculture from 1845 to 1925, and the messages of all the presidents. The influences which have shaped the destiny of our agriculture during this period are here placed in three groups: *positive, negative, and other.*

Among the positive influences the following may be enumerated:

1. Vigorous encouragement of the rapid settlement of our public lands, by liberal sales and homestead policies, by grants of land to railroads, by public irrigation projects, etc.

2. Further attempts to exploit our agricultural resources fully by introducing all manner of new plants and animals, or new varieties or breeds, that might thrive in this country. Important examples of successful introductions are alfalfa, durum wheat, pima cotton, and probably sugar beets. The Secretary of Agriculture in 1863 listed forty farm products not grown in the United States, all of which should probably be grown here. Included in the list were tea and coffee. All were probably tried one time or another. The first distributions of tea plants were made in 1859. In 1860, 32,000 plants were distributed. Between 1876 and 1885, \$28,000 were spent upon a government tea farm. As late as 1898, Congress appropriated \$1,000 for experiments in tea culture. In 1900, Secretary James Wilson stated that tea could be grown for fifteen cents a pound in the United States, and sold at thirty cents, making a profit of 100 per cent. The silk worm episode is almost as exhilarating. As late as 1904 and 1905, Secretary Wilson was still urging tea and silk culture. The first mention of sugar beets was in 1864, in a statement that we were paying \$100,000,000 annually for imported sugar, and could grow it

from sugar beets ourselves at one-half that cost. Sugar beets were pushed hardest in the days of Secretary Wilson. In 1923, sugar from beets represented only one-tenth of our total consumption, and this with a tariff equal to nearly half its price.

3. Constant effort to check diseases and pests of plants and animals, to develop new breeds and varieties, improve cultural methods, etc. The report of the first commissioner of agriculture in 1848 stated that one purpose of his department was "to make two blades of grass grow where one grew before."

4. Encouragement of, first, education in agriculture, then research, then extension. Few countries have done more of these things, even in proportion to their size, than the United States.

5. Only recently, mostly in the last twelve years, development of marketing services of all kinds, including inspection, grading, market news, etc. Also research in the field of marketing, and recently some encouragement to co-operative marketing.

6. Developing foreign markets for farm products. This was an important activity in the days when American products were being discriminated against in Europe, and has become important again of late.

7. Within the last ten years only, improved credit facilities for agriculture.

8. Since Harrison's administration, tariffs on some farm products, frequently without regard to whether they would be effective or not. The Democratic party usually removed these duties or lowered them when it was in power.

9. Unrestricted immigration until recently, which greatly hastened the development of our agricultural area from 1840 to 1900 particularly.

10. Recently, improved mail and road facilities.

The following is a list of policies which have had an opposite or negative effect on agriculture:

1. Heavy import duties on manufactured products. No nation has ever gone in for stimulating urban industries on so vigorous a scale as has the United States. The duties now generally average around 40 per cent of the value of what few manufactured goods are imported. Coupled with this, most raw materials of manufacturing have come in duty free, even though they compete with domestic farm products in some cases. Hides, vegetable oils, and Egyptian staple cotton are cases in point.¹ All of this was done in the beginning to give our infant manufacturing industries a chance to get started. We were a largely agricultural nation, and thoughtful people agreed that

¹Please understand that the author is not here arguing for tariffs on these products.

we would all be better off if we diversified. But we allowed the infant to grow so strong that it has overmastered us. The effect has been to penalize agriculture by making farmers pay higher prices for what they buy, while the protection they are receiving on their farm products is adding little to offset it. It must also be remembered that tariff protection for industry raises the whole level of money wages (not real wages) in the cities. The protected industries take labor away from the unprotected ones and the exporting ones, until only the more efficient units of these, those which can meet the higher wages, are left producing. Along with this is a reduction in per capita output, because the labor is now used in less productive industries. The same analysis probably applies to the land and capital goods also used in production. The result is that nearly all the things which the farmers buy from the city, not just the dutiable goods, cost appreciably more. The total effect is not 40 per cent, but it is surely more than the 2 per cent that certain quaint jugglers of figures managed to get inserted in President Coolidge's recent Chicago speech.¹

Also the wages the farmer pays his hired labor are higher because of the competition of the protected city industries. Thus the farmers who are near the margin are crowded out just as are the marginal city producers in unprotected industries. More of them do without hired labor and farm less intensively. Similarly, they do without so much machinery and feed and fertilizer.

Our attention is frequently called to the fact that our middleman margins are about the highest in the world. The middlemen tell us that their margins are high because their costs are high. Their costs are high because wages and rents are high. These are high because middlemen must compete with protected industries. The same analysis applies to railroad rates. This, of course, is merely one of the ways in which manufacturer's tariff subsidy is in considerable part shifted to agriculture.

The whole effect of this set of circumstances is a considerably reduced volume of agricultural production and agricultural population, and also as will be explained later, a reduction in farm incomes and rural standards of living.

2. During the same period of increasing protection for city industries, tremendous incentives were made available for the rapid exploitation of our rich mineral and timber resources. No other nation has ever cast its natural resources as wantonly to the first comers as

¹It is not possible to determine how much the tariff does raise the farmer's cost of living. The higher prices farmers pay for supplies, machinery, etc., are partly reflected back to the city in higher prices for food and other raw materials.

the United States. The raw materials of this exploitation gave us the means wherewith to underbid the world with our products.

3. Incidentally, the rapid depletion of our forests gave us a vast area of cut-over land now lying desolate or turning slowly into second-growth, and supporting no population whatever, which if developed slowly and wisely would have supported a considerable population that would have combined farming with timber work.

4. Transportation rates in this country have probably been made to favor large established city centers at the expense of small centers. A system of rates set up on the basis of decentralizing industry would probably also give us more people living on the surrounding farms.

5. Our liberal corporation laws, permitting an almost limitless amount of capitalization of expectation and stock-watering, have stimulated city expansion. One consequence of this is the excess capacity so common in industry. The very corporation itself, even if kept rigorously within the proper bounds, is a great incentive to city enterpriser. The farming type of business has nothing to equal it. The corporation is not suited to it.

6. Our tax system has in effect subsidized industry and commerce at the expense of agriculture. Professor Warren in his *Agricultural Situation* takes the following figures from the reports of the National Industrial Conference Board, a manufacturers' organization:¹

Per Cent of Income Paid as Taxes			
	1913	1919	1922
Farmers	10	8	14
All Others	6	13	11

With the further reduction of income taxes that has come since 1922, and the rise in city incomes, the percentages by now are about back to their 1913 relationship. The farmers will continue to bear more than their share of taxes until more of them can be collected as other than general property taxes.

7. Probably after 1860, unrestricted immigration favored city growth more than it did country growth, since more of the immigrants remained in the cities.

8. Lastly, in a period when urban industry is being consciously stimulated, and it is responding splendidly to the treatment, all eyes are focused upon it and agriculture is neglected. It is assumed that it can take care of itself, and this assumption continues long after the fact.

In addition there are other influences which are not in themselves

matters of policy, but which nevertheless have been adverse to agriculture.

1. That irregular succession of ups and downs of the price level sometimes carelessly referred to as the "business cycle" has especially affected agriculture. In the nature of things, the farmer can contract his business very little when the depression comes. Deflation generally bears harder on the farmer than on the business man. This has especially been true of the recent deflation because of the land boom that came with the inflation.

2. Readjustments between city and country probably take place slowly, even in highly disturbed periods like the last ten years. If there were no lag in these readjustments, of course rewards in city and country would always be equal. Enough people would at once move in either direction to equalize rewards exactly. The greater the lag, the greater the disproportion between rewards. *It is, of course, because of this lag that the rewards are better in the city than in the country. Without the lag, the movement would have taken place all right, but the rewards would always have been the same.*

Since the changes required have nearly all been in the direction of requiring more people to live in the city, the lag in readjustments has constantly favored the city, and hence city rewards have constantly been higher. Added to this is the effect of the rapid increase of the population in the country, making necessary an annual movement to the city of several hundred thousand. A vast amount of human inertia in the aggregate must be overcome to get this many people to leave home and go to the city. It is conceivable, of course, that after a long period of this kind that the cityward movement might acquire a momentum that might carry it farther than basic conditions warranted; but it is doubtful if such a period has ever occurred in our history.

3. In the nature of things, the small isolated farm unit is not in a position to realize most of the opportunities of large-scale production, such as large-volume buying and selling, scientific analysis of tasks, experimentation to improve methods, differentiation of tasks, thus providing degrees in jobs all the way from roustabout to general manager, etc. If agriculture is ever to realize these advantages, some strenuous efforts must be put forth to put its organization upon a different basis.

4. For similar reasons, farmers as independent-acting units are weak in bargaining power when it comes to buying and selling. They also generally use poor judgment in choosing when to sell. They have not had in the past and do not have yet, except in a few isolated

instances, the organization necessary to put them on a basis of equality with the city in this respect.

Now we must all admit that the nation has done many things for its agriculture. *But the point is that it has done much more for the city, and farming is of such a nature, as we have just pointed out, that it needs to have vastly more done for it than the city if it is to maintain equality with the city.* The saying that there is no greater inequality than the equal treatment of unequals, is all to the point here; and yet we have not even treated agriculture as well as the city.

The conclusion therefore is that our national policies have favored the city more than the country; and this in spite of the very good reasons pointed out above for favoring the country a little if any favoring is to be done. The result has been, first to give us a larger percentage of our population living in the city, and second, better incomes in the city than in the country. If the farm people moved to the cities the moment that city incomes were a trifle higher, their incomes would always be the same in the two places. But they do not, and the result is lower incomes in the country. A third result has probably been to give us an adverse selection of people for farm work and country life. This in turn has also lowered the earning power of the farm population.

One of the reasons, of course, that farm people do not move to the city more readily, is that they are satisfied with lower standards of living and of work. Professor Taylor points out as one reason for this the inheritance of the low standards of the frontier. Only self-denial and hard work made successful pioneering possible. Our farmers are so little removed from frontier conditions that they still retain a heritage of frontier standards of living and work. Even more important than this influence is the heritage of low standards brought over from Europe. Even in the second generation, and in many cases in the third and fourth, farm people of foreign stock work harder and deny themselves more in order to get ahead than our farm people of native stock.

Differences in incomes between city and country not only determine the amount of money which families can spend on their living, but also the amount of taxes that can be raised for education, roads, and other local improvements. But differences in incomes by no means tell the whole story. A considerable part of the quality of living has to do with such things as nearness to good schools and churches, libraries, doctors, social clubs, and most important of all, good stores; also with opportunities for recreation, sociability, and inspiration and leadership; and the satisfaction that one gets from one's life work. Quality of living is in large part based upon the use made of the time

and energy outside of the regular work. This is especially true for the women and children of the family. Some of these things are more difficult to provide in the country than in the city. Distance is such an important factor in the country. Country people really need good roads far more than city people need good streets—that is, if they are really to live—because they dwell so much farther apart, and so much farther from schools, doctors, and stores. But the city people got their streets first. It is in the matter of education that our neglect of the country has been most real. We need only to compare our rural education system with that of Denmark to see how we have failed in our duty.

We are now ready to consider the question of what our policy should be in its relation to agriculture, and its balance with urban industry. The objectives of such a policy should be in the first place to put agriculture on a basis of equality with urban industry, and in the second place, especially for the present at least, in view of the balance of favors in the past, to subsidize agriculture and country life a little. If this can be done, in the first place, we will have a relatively larger rural population; in the second place, incomes will be relatively better in the country, at least for the time being, and very shortly also the quality of rural living. This will be followed by fewer and fewer of the more efficient and enterprising people leaving the country for the city. The final aim of such a policy must be to give us a rural civilization that offers most of the opportunities for fame and fortune and for the arts and graces of life that the city affords.

If national policy in the past has given us conditions that have worked against such objectives, then it can be made in the future to give us conditions that will work for such objectives. Such a policy relates itself to the following heads: tariffs, export bounties, and the like; immigration; land development and land settlement; transportation; taxation; credit; co-operation and rural organization; education. Obviously it will not be possible to cover all these heads in detail. What follows is meant rather to characterize than to outline policies in detail.

In view of the effect of our past tariff policy upon agriculture, the obvious procedure is to reduce present duties on manufactured goods. This of course must be done rather gradually. The reduction must be directed at first simply to checking any further growth of industries that cannot stand alone, and then a little later to the actual weeding out of the more inefficient of the plants, and only after a considerable period of years, perhaps as many as thirty or fifty years, to the basis of only the efficient plants which are able to stand alone,

or perhaps in some cases, to no plants at all. Furthermore, the effect of shutting down of plants on particular locations should always be considered. It may be necessary in some cases actually to force labor to move to other areas, but in general, some substitute employment for labor in the same area should be developed, and if possible, some substitute use for the factory buildings.

Obviously all tariff changes should be preceded by a careful study of the industry, this study being directed to the end of forecasting the effect of the tariff reduction on the industry as a whole, and also upon particular plants. The kind of study needed is not a study of "differences in cost of production between this and foreign countries." Some attention must be given to trends in production in other countries, trends in world prices for this product, and the like; but the place for most of the study is at home in our own industry. At the best, the reductions in the duties will be experimental; that is, only a small reduction should be made at first, and then the effects of this should be watched for several years. This will furnish the basis for passing upon further reductions.

But the final objective should never be lost sight of, which is to leave us with no manufacturing industries which are not able to stand alone, unless it is advisable to retain them for military or other similar reasons. If such a program were carried out, we would find ourselves still with great manufacturing industries utilizing the wonderful resources of our mines, our farms, and our forests. Some lines of manufacturing would be more expanded than at present, particularly those in which we are now out-producing the world and supplying foreign markets. But on the whole, the country would be much less predominantly industrial than it will be if we continue on our present basis of stimulating industry at the expense of agriculture.

The same policy should be followed for agricultural tariffs as for other tariffs. Tariffs should not be taken from flax until a substitute system of farming with much less flax in it can be developed; likewise for sugar beets and sugar cane. In any case, the tariff reductions should be gradual. Also if in the not too distant future some farm product promises to be produced here advantageously, it would be rational and even safe to protect it a little and hasten its coming. This may apply to dairy products. There are two types of farm products which, climate and rainfall being satisfactory, will not maintain themselves in the United States to a sufficient extent to give a full domestic supply. One of these types requires very extensive methods—like wool and flax and possibly wheat. The newer regions of the earth out-compete us for such products. The other type consists of products requiring much man labor, such as flax fibre,

hemp, tea, and silk. Dairy products may be just on the edge of this group. If so, then as our population grows we will presently pass into a condition of self-sufficiency and even export in dairy products. Dairying was apparently in this stage before the war; but our agriculture has been extensifying ever since.

The Department of Agriculture is to be highly commended for its work in introducing new plants into the country. But it should be more careful in the future to demonstrate that they are economically possible as well as physically possible. No introduction should be given out for general cultivation until an economic place for it has been clearly demonstrated. If such a place can be demonstrated, tariff protection for a few years would be entirely rational; but because we are not rational, also extremely dangerous. As witness of which, let me again mention sugar beets.

The agricultural self-sufficiency, of which some men in high places speak, and to secure which they would levy tariffs, it will be apparent to all, simply means growing less of products for which we are well suited, and more of other products for which we are not so well suited, and hence a lowering of real incomes not only of farmers but of the whole nation.

I know that some persons look upon such a tariff program as here outlined as extremely visionary. It does not seem so visionary if we take in enough of a period of time and group of nations to obtain a little perspective. The industrial classes of Europe, that recently kept Great Britain free trade, that have kept Belgium free trade, and have helped keep Holland free trade, may at any time make Germany turn toward free trade. With Great Britain, Germany, Belgium, Netherlands, and Denmark on a largely free-trade basis, this will become the dominant note in Europe. It is therefore not visionary to look forward to days of tariff reductions again—it is only forward-looking. If there is one reason more important than others why the farmers of the United States should not swing to protection, it is that they will probably have to swing back from it again. This country of ours is going to continue industrializing for a time; and our workmen are probably going to go the way of British workmen and vote for cheaper living and higher real wages. Even President Coolidge used this as an argument against price fixing and export corporations in his recent Chicago speech.

There are others who tell us that such an analysis of the problem as this merely reflects an out-worn classical economic doctrine. They say that a true analysis must view each nation at any time as in a certain stage. They sometimes see a nation at any time as made up of various social groups struggling with each other for supremacy,

the policy at any time simply reflecting the selfish interests of the strongest groups. If social groups are going to settle it their way anyway, why have economists wasted their time talking about it? There are enough instances in history in which groups within a nation have submerged immediate gains or temporary social advantages for the sake of the larger good to furnish an economist an excuse for trying to point the way in the present situation. It is also extremely possible for the struggling groups to be blind to their real interests, to be focussing so intently upon the immediate or the superficial as to lose sight of the true. There have been times in history when economists have been able to explain and point out the true situation to enough people so as profoundly to influence national courses of action. Are these days entirely over? At the present moment in this country, we are largely at the mercy of a powerful group which believes its interests will be furthered by continuing a high protection policy for manufactures. Shall we as economists simply say: "There is a tide in the affairs of nations when all of them are high protectionists. We are now at such a tide. Why worry?" Perhaps so. But I believe it is possible to carry nationalistic or institutionalistic economics to the point of complete nothingism.

There is much that we might learn about tariff policy from the little nation of Denmark, consistently free trade since 1863. With a soil one of the poorest in Europe, with no resources in coal, iron, and other minerals, she has waxed in prosperity till no farmers in Europe live any better if as well. But her manufactures have grown too. Urbanization is going on as fast as in protectionist France. In spite of a rapid population increase—17 per cent a decade—her emigration has never been large, and has declined from eight thousand per year in the eighties to four thousand per year at present. It is highly significant that when the flood of American wheat hit Denmark, she did not set up tariff barriers as did France, Germany, and Sweden, but set about finding something which her people could produce to advantage, and set about producing it, and beat the world at it.

The views of my correspondents on the subject of the tariff were indeed interesting. About a third of them saw no relation between tariff policy and the balance between agriculture and industry. A dozen of them felt that the tariff at present favors the city. At least three were willing to go as far as to pass export corporation or bounty legislation. Several others expect the tariff to be of great benefit to farmers eventually when we begin importing wheat, meat, dairy products, eggs, and the like. I find it necessary to explain to these, as well as to four editors of farm papers, as many more college presidents and deans, and two senators, that tariff protection does

not raise the standard of living of a people as a whole, but on the contrary lowers it; that trading with a nation with a lower standard of living than ourselves does not lower our national standard of living, but on the contrary raises it. One might as well say that a man was lowering his income by buying a horse for \$100 which it would cost him \$200 to grow. It is good economy for nations as well as individuals to buy anything which they can buy more cheaply than they can produce it. It means a net gain for the nation. Of course, if you are growing a crop which takes lots of hand labor, the countries with low wages can undersell you. But you should not be trying to grow that kind of a crop. You are lowering the average income of the farmers of the nation by so doing—yes, even if you succeed in getting tariff protection for it.

All the rest of the tariff question relates to the political strategy of it—the political devices to be employed in getting the tariffs on manufactures reduced. It is entirely possible that export corporation and export bounty agitation may be very efficacious devices. Under cover of it, we have already secured additional funds for agricultural research, and expect to get the right sort of co-operative marketing bill passed. We never would have obtained these at this time if we had gone after them directly. But it is not the purpose of this paper to discuss realistic politics.

Nothing could be more serious for our agriculture in the end than to bring another flood of immigrants with low standards of living onto our land. They would force from the land a large number of our present farmers with their improved standards, and force the general level of living on the farm back ten or twenty years. The general consensus of opinion among the correspondents, I am glad to report, was for keeping up the present barriers, and even raising them. Several would like to see the Mexicans put on a quota basis. Several of the farm editors and college deans brought this out very forcibly.

A few people seem to confuse the effects of immigration restriction with the effects of tariff restrictions. Letting people into our country means an actual dividing of our resources with them; letting their products in means a profitable exchange of products with them, and actually making our resources go further. As long as the low-wage peoples stay in their own countries, they can do us no damage, and they may actually help us by selling us some handmade goods more cheaply than we can make them ourselves.

Those who wrote me on the subject of land development, without a dissenting voice, and especially those coming from the west where the irrigation projects are, said that land should not be taken into use or prepared for use more rapidly than economic conditions warrant, and

most of them stated specifically that no new lands should be developed until the population catches up with agricultural production again. Many said that what we need more is to farm better the land we now have. A few feel that the time is coming soon when we will be needing more land for crops, and that therefore we should be planning for it. With this latter view I am disposed to agree. Now is the ideal time to do our land classifying, so that when settlement starts in again, we will know where to put the settlers. Now is the ideal time to cut out certain lands and set them aside for forest uses. There will never be a time again when such a policy will meet with so little opposition. But as for actual development work, and more particularly, actual settlement, it should not be pushed at this time. Our state immigration departments for the time being should rather turn their attention to keeping new settlers from getting onto the wrong land than to seeking new settlers. When settlement begins again, effort should be made to direct it to regions which clearly will never be included in forest reserve. And we need for the present an extremely rigorous forestry policy—one that will take cut-over land and abandoned land now growing up to brush and second-growth by the millions of acres and set it aside for natural reforestation; and then we need an enlargement of our natural and state forest services until they are ample to take care of this growing forest domain.

In the matter of transportation, many significant suggestions were made. Obviously our transportation problem is a large one and still unsolved. The general direction in which the solution lies, one would gather from the numerous suggestions, is some scheme of greater unification which will make it possible to adjust the rate structure to the larger needs of the nation. The concept of "scientific determination" of railway rates on the basis of cost of service is mostly nonsense. Costs of different types of railway service cannot really be calculated. Railway rates should be determined from the point of view of accomplishing the ends desired. These ends are largely social in character and should be evaluated from the standpoint of long-run economy. Nothing very much should be done in the nature of really subsidizing the farm population.

With only two exceptions, and these editors of farm journals in the east, those who wrote felt certain that farmers are bearing more than their share of the tax burden, and that the way out is higher income taxes and lower real estates taxes. Several also suggested higher inheritance taxes. Two suggested that the federal government should levy a higher inheritance tax than at present, but deduct amounts from its collections equal to the state inheritance taxes paid. This would cause all states at once to pass a state inheritance tax law.

Those who discussed the volume of public expenditures saw little chance of its being reduced. A few spoke of the danger lurking in the present propaganda for tax reduction. They pointed out that it is easy for the public mind to confuse true economy brought about by more efficient administration of public funds, with false economy consisting of the denial of expenditures badly needed.

I have no doubt that if the men who answered my inquiry as to taxation were given a chance to settle the matter, they would continue our present income and estate taxes at the present rates or higher, and that they would use the funds so obtained in several of the following ways:

1. Paying off our national debt more rapidly.
2. More federal aid to building highways.
3. Greater expenditures in establishing national forests.
4. Federal aid to strictly rural education.
5. Greater expenditures upon the crop and livestock reporting service and the general statistical service of the United States Department of Agriculture.
6. Federal aid to counties in home demonstration work, county nurses, county hospitals, and the like.

It should be added that the taking of higher income and inheritance taxes is justified on more grounds than simply ability to pay. Large incomes and large fortunes are in themselves indications of benefits received, or social arrangements in the past that have made such incomes and fortunes possible. What is more rational and just than to take from the well-to-do in our cities in the form of taxes some of the fruits of the tariff and other advantages they have enjoyed, and use the funds so obtained to put agriculture on a basis of equality with the city?

Few thinking people are alarmed at Secretary Mellon's boggy of discouraged industry. It should be plain to all that what we actually need is some rigorous checks on the wild orgies of promotion such as the present one which lead to inevitable collapse and depression. Nothing could be better evidence of unhealthy profit-taking. Further evidence is in the great excess of producing capacity in so many of our lines of industry.

Special mention should also be made of the great need for revision of our forest taxation policy.

The general consensus of opinion on the subject of credit for agriculture was that we have credit agencies enough at present, but that as at present administered, they have not been adequate to the needs of agriculture, nor are likely to be in the near future. That the Federal Farm Loan System is not meeting present needs adequately, is demon-

strated by the fact that our Minnesota state credit system recently loaned forty million dollars in a few years, and stands to lose very little of it, in spite of insufficient administration and political interference. Think of the loans our large co-operative organizations have been able to secure. The tremendous needs of the south for production credit must be met at reasonable interest rates. All of these needs for credit, in fact, are not really needs for more credit, but for credit in better forms, more wisely administered and at lower interest rates. The new loans in each case have largely replaced other forms of credit. One of the institutions which has been replaced most of all is the country bank, one of the weakest parts of the system. Generally speaking, its scope is so small that a few bad ventures in a bad year may put it out of business. It needs the insurance that comes with being part of a larger system. Moreover, its volume of business is small and its costs high. If anyone is thinking that our agricultural credit problem is largely solved, let him change his mind.

In organization lies one of the major hopes of our agriculture. Our farming people must get together around a common understanding of their problem and defend it to the last ditch. Only in this way can an agricultural minority protect itself and the true interests of the nation. It must also be more highly organized in a business way. It must have something which will take the place of the city's corporation. The call is for increasing integration in agriculture—first integration in buying and selling, then in a measure and increasingly in production. This does not mean factory farming, but rather the co-ordination of small units in some lines of activity, the co-operation of small units in providing many services and in many joint activities. It may even in many cases be carried to the point of co-ordinated management of groups of farms. The county agent will not be replaced—he is an educator; but many of the activities that he is now carrying on will be taken over by staffs of business agents employed by organizations.

But we have already made much progress. The nucleus of such organization is co-operative marketing. Already our co-operative organizations are extending their activities widely in the field of production. They must do so increasingly. I could say nothing on this point any more forceful than some of the public utterances of President Coolidge and Secretary Jardine. A year ago the administration was disposed to start off on the wrong tack in its aid to this movement. Today both are squarely behind a plan of assisting it which has the support of all the co-operative organizations in the country, and, I should add, of all the presidents and deans of agricultural colleges, all the agricultural editors, and all the leaders of farm organizations

in the country. But ultimately the co-operative organizations must broaden their interests beyond the confines of single commodities. For example, they must come to look at the tariff problem from the point of view of all agriculture and the nation as a whole. Is it necessary to point out that when agriculture is organized as I have indicated that it will no longer be necessary for an ambitious young man to go to the city in his youth in order to carve out a career?

The common understanding around which our farmers must get together, must be a right understanding. If we had such an organization today, it is much to be doubted whether it would have such an understanding. Its leaders might, but the rank and file of supporters would not, and hence the leaders would not be able to carry out the policies which they knew to be right. Could any better case than this be made for the need for education for agriculture? But it needs to be a different kind of education for agriculture than agricultural college students are now generally getting. Every boy and girl who graduates from an agricultural college today should proceed on the assumption that some day he may go to Congress. This means political science and economics and sociology as well as animal husbandry and agronomy—and all of it directed to the point of view of agriculture and the nation as a whole. The same kind of education should be carried down into the agricultural courses in high schools, and some part of it even into the rural schools, as is done in the folk schools of Denmark. It is no accident that the people of Denmark know how to co-operate and how to vote. They are taught it in their schools.

But more important than even this is that our country people be taught how to live—how to plan their homes and their farmsteads, how to beautify their homes and make them comfortable, how to grow a good family garden, how to play and dance and sing and entertain one another in their social clubs. Why should rural education of this type not be supported out of the surpluses of the incomes of those who in the past have benefited at the expense of agriculture?

There has been much discussion of agriculture of late, but most of it has been in relation to the recent and still partly prevailing agricultural depression. This paper has little references to this depression. Instead, it reverts back to the fundamental issues as to agriculture and country life that were raised in Roosevelt's days. These issues will be with us when in a few more years we have worked ourselves out of the present agricultural depression. It is now time to be looking beneath the surface back to fundamental issues again. So far as the present is concerned, it will be highly desirable if a few more hundred thousand farms are abandoned. But while this is going on, we should

be building up a policy that will equalize agriculture and industry on a basis that will keep a relatively larger proportion of our people on our farms and improve their living at the same time. The policy which I have set up as calculated to attain such an end is one with which the present administration is much in sympathy in some parts—but much out of sympathy in its most important part; namely, the tariff, taxation, and increased expenditures to help put agriculture on its feet. We can expect little support for such a program as ours from the general press of the country, which for the present is willing to sacrifice nearly anything for income tax reduction. Our best hope is in the agricultural press. The degree of understanding and independent thinking that one finds in such farm journals as *Farm and Fireside*, *Wallace's Farmer*, *Successful Farming*, the *Southern Agriculturalist*, and the *Northwest Farmstead* (this list is by no means complete; it includes only those whose policies I have been able to study) augurs well for the future, and suggests that from them may come the next forward move.

OUR RURAL POPULATION DEBACLE

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Debacle is probably not a good term to characterize the rural population situation with which this paper is to deal. Dilemma might be a better term for the situation which sets the problem consists of two contrary sets of facts, each seeming to oppose the other. In the face of the fact that we do and always must depend upon farmers to produce the chief food, clothing, and shelter products to support the whole population of the earth, we seem to have reached a situation where we are remunerating them so poorly for performing this task that many persons tell them their only salvation is to quit. The drift to the city which is derided by some as the greatest tragedy of civilization is encouraged by others. Both these groups are friends of the farmer and if he listens to them both he is in a dilemma indeed.

I suppose it is fair to say at the outset that these two opposing opinions arise from different points of view. One opinion is based upon a conviction that to have as many of our people reared on the farm as possible is essential to the building of a good civilization. The other opinion is based upon a conviction that our present economic system is operating with sufficient perfection to give us an index by means of prices to tell us how many people ought to be engaged in agriculture. Upon this conviction they state that we have too many farmers for the well-being of rural life. The dilemma is, then, how can we feed an ever increasing national and world population if the farmers do not produce more food supply, and how are the farmers going to live if they do not stop producing so much? I suppose I need not tell you that there are those who say we must ultimately fail at this task of food and textile production even if we push the agricultural resources and the farmers both to their maximum of productive capacity. It shall not be the purpose of this paper, however, to argue this issue. What it shall attempt to do is to delineate the historical and psychological facts which led up to the present situation and to offer some suggestions which partake of something different from laissez faire economic theory.

There is little question that the first rural problem to reach the proportions of universal concern in America was the so-called "tragedy of the urbanization of our population." This was called sharply to our attention by the census report of 1910 and again in 1920. To the minds of many people, "the drift to the city," and the "rural problem" were phrases that had practically synonymous meanings.

The idea universally aired was that this movement of population to the cities was leaving a decadent civilization in the rural districts, decadent because the cities were robbing rural society and the enterprise of farming of all of their best minds and most ambitious citizens. The problem, according to those who held this opinion was, "how to keep the boy on the farm," "how to retard the process of urbanization," "how to uplift and regenerate rural society."

There is no question that the "drift to the cities" has been real enough and that it still continues. The census of 1790 counted as rural all persons living in cities of less than 8000 population. According to this classification, 96 per cent of the national population at that time was rural. In 1920, using this same classification, our rural population had declined to 56 per cent of the national population. Since 1880 the classification for rural population has included only those persons living in the open country, in unincorporated villages, and in towns of less than 2,500 inhabitants. During this period and on the basis of this classification the percentage of rural population has fallen steadily from 70.5 per cent in 1880 to 48.6 per cent in 1920. If we eliminate all incorporated towns and villages, the rural population in 1920 is seen to be only 40.1 per cent of our total continental population. We are now practically 60 per cent urban.

Between 1900 and 1910 two entire geographic divisions—New England and the East North Central—lost absolutely in rural population. During this same decade six states—New Hampshire, Vermont, Ohio, Indiana, Iowa, and Missouri—lost rural population. During the next decade three geographic divisions and fifteen states lost rural population.

Of course, not all the persons who left these areas went to cities to live and work. Many of them went to other states and to Canada. Furthermore, by no means all the relative increase of city over rural population was due to rural migration. Millions came from foreign countries and millions more were added by natural increase. Professor J. M. Gillette, by a careful and fairly conservative calculation however, estimates, that over three million people moved from American, rural districts to American cities between 1900 and 1910. So there can be no denying that we are not only relatively losing in rural population, but that millions are actually leaving the rural districts for city districts and leaving the occupation of farming for city pursuits.

An analysis of the character of rural population would indicate that it is largely young men and young women who leave the rural districts. The natural increase of rural population is almost double that of cities, due both to a higher birth rate and a lower death rate among rural people. A study of the age distribution of

the total population indicates that many persons born and reared to young manhood and young womanhood in the country have found their way into cities by the time they have reached maturity. The rural population has an excess of persons under fifteen years of age, a deficiency of those between fifteen and forty-five years of age, and practically a normal distribution of those over forty-five years of age. Dr. C. J. Galpin presents these facts concretely by somewhat the following illustration. "In the total farm population of the country (1920), 25.7 per cent were under ten years of age. In a unit of 10,000 farm people, 1,900 young people are non-producing children. The farm unit is carrying a handicap of 670 children, while the city would have in their stead 670 producers. In a thirty million city group, there are two million fewer children under ten years of age than there are in a group of the same size in the open country." Dr. Galpin adds, "It is evident that farm population is pouring this continuous surplus of adolescents, ready reared and ready educated by farm people, into city groups as producers of city wealth."

When millions of persons pick up "root and branch" and leave the environment in which they were born and reared, there can be no denying that stern forces are at work which, to the minds of those who move, portend serious consequences unless some action is taken. Nor should we lose sight of the fact that these forces are operating in relation to the total rural population—in the case of those who stay on the farm as well as in the case of those who leave.

I have made a study of 1470 heads of families and unattached individuals who have moved from the open country to Missouri, Iowa, Illinois, Kansas, Oklahoma, Arkansas, Louisiana, Texas, Mississippi, Tennessee, North Carolina, and Virginia towns within the last ten years. The study reveals the fact that 35.7 per cent of them went to the city to participate in what they expected to be greater economic opportunities; 26.9 per cent went to avail themselves or their children of better educational advantages; 15.7 per cent retired to city life because of old age or because they had accumulated enough wealth to live in comparative idleness the remainder of their days; and 15.4 per cent went to participate in a livelier and better organized social life. The remaining 6.3 per cent assigned the following reasons: "failing health or incapacity to do farm work," "marriage to a man whose occupation was in the city," or "death of the bread winner or entrepreneur." This body of statistics while not elaborate probably represents fairly the causes of rural migration to cities. In the vast majority of cases, these persons left the farm voluntarily and because they believed that urban life in one respect or another is to be preferred to country life.

We have already noted that more than a due portion of the young people migrate to cities. Hundreds of thousands of young people just entering occupations and professions or who have recently started in life for themselves choose the city as their field of greatest opportunity. The very fact that a conscious choice is exercised in practically all such cases helps to explain somewhat what type of people the rural districts are losing. In the first place, slow-minded people do not quickly take up new enterprises. They stay on the farm where the tasks of life are learned by apprenticeship and assimilation. Second, a man who never reaches the stage of analyzing his economic and social outlook sufficiently to raise the issue of its comparative advantages with other outlooks, is likely to be the very individual who perpetuates custom farming, makes it difficult to get the farm enterprise on a scientific and business basis, and accepts without protest a low standard of living on the farm. Third, those who are most wide-awake, read most, seek cultural and business education, or most want to get on in the world, are the very ones who not only know about the higher dividend-yielding enterprises of society, but are just the type of persons who believe in themselves enough to volunteer for the financial battle. Fourth, those who are unwilling to put up with poor schools, poor churches, poor houses, little recreation and few social contacts, are altogether too often the persons who go to the city and battle for these things there and thereby help the city to get them, while those who make no such demands stay in the country and lower the level of competition by going without such things.

If all of the brains and initiative which has been born or developed on American farms but is now guiding and furnishing dynamics for business enterprises in our cities, were to be turned back on to the farms, some of the things which I shall mention in the conclusion of this paper would come to pass in less than half a generation.

There are two great historic explanations for the fact that the population of the United States was built up on the basis of agricultural settlement for the first one hundred and fifty years and since that time has tended to become rapidly urbanized. One of these is the explanation which comes out of an analysis of the influence of the industrial revolution upon rural settlement, and the other is the explanation of the influence of the "free lands" of this continent. The knowledge of the favorable land situation of this continent became widely known in Northern Europe just at the time when the industrial revolution was entering that section of the world. Many people undoubtedly came to this country to escape the influences of that industrialization movement. The vast land resources of America and the lack of trade and commercial technologies kept the industrial

revolution out of this country for practically a hundred years after it entered Europe. During this hundred years the continent was settled. Between 1620 and 1790, a period of one hundred and sixty years, less than four million persons had taken up permanent residence in the United States. Within the next one hundred years the population grew to almost sixty-three million, accompanied by a tremendous migration from Europe. Very nearly the sole cause of this migration was the land opportunities which the continent offered. Never before in the world's history had just such a situation existed. Probably never again will such a combination of giant influences be brought together. The coming of the industrial revolution expanded trade and commerce at unprecedented speed. Here in America lay the land, some of it rich beyond the imagination, to furnish the raw materials for manufacturing, trade, and commerce. The coming of the steamship and railroad, both a part of the industrial revolution, made possible and feasible the settlement of our lands and the placing of them under cultivation. The result was an era of agricultural expansion which constituted a real epoch in the world's history. Not only did people from all over western civilization migrate to our open and free land, but New England communities which had been settled, some of them for two hundred years, were practically depopulated by the westward migration. Between 1850 and 1860 the populations of Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, and Missouri increased more than 167 per cent. Nearly forty-three million acres of land were taken up in these states during this decade. This migration continued only slightly abated for a full generation. It lost all semblance of an economic adaptation and became a great psychological movement. About 1900 the tide of migration struck the limits of the frontier and turned back upon itself. Even then the fertile land of Canada served to keep up the belief that land ownership and land speculation constituted the chief economic opportunities of this continent.

When the fertile lands of the central river valleys were all taken up, population—that is, land-hungry farmers—pushed on into the semi-arid lands of Kansas, Nebraska, and the Dakotas. When these semi-arid lands were gone, millions of dollars were spent to bring the arid lands yet farther west under cultivation. Today we are reaping the results of this historic psychological movement. We now have under cultivation vast areas which lie beyond the margin of profitable production. Worse yet, we have a *national land speculation complex*, the essence of which is a conviction that almost any land which does not consist of river beds or mountain tops is an agricultural asset to be cherished. The war may have temporarily speeded up production

and temporarily have given a revaluation to the farm enterprise, but it was the historical and psychological movement of the land hungry farmers and the land speculators which gave us our surplus of farmers.

Between the time when this historic migration began and the present, the industrial revolution has entered the United States, at first slowly, now at full tide. Its first influence was to encourage agricultural expansion by expanding the markets for agricultural products. Its second and more drastic influence was to take from the farm many refining processes which could be better carried on at points of power, population, and market concentration. Just what proportion of the pioneer farmer's time went into toolmaking, lumbering and logging, textile and food manufacturing, it is impossible to know, but at any rate practically none of the modern farmer's time is so spent now, and the direct result is twofold. Those who now live on the farm are specialists in the production of raw products, and those who carry on all other processes, at one time connected with the occupation of farming, now live in towns and cities.

The combination of these two historic facts, the opening up and settlement of our Middle West and West, which built up a tremendous rural population, and the coming of the industrial revolution with its refining and distributing processes all centered in the city, gave us first a rural population expansion and then an inevitable rural population contraction.

Furthermore the increased efficiency of the farmer himself, due to the coming of science and machinery during the last one hundred years, has been very marked, making possible the production of a much greater volume of farm products with practically no increase in farm labor force. In 1830 it took three hours and three minutes of human labor to produce the average bushel of wheat in the United States. In 1894 it required only ten minutes. In 1855 it required four hours and thirty-four minutes of human labor to produce the average bushel of corn. In 1894 it required but forty-one minutes. In 1841 it took thirteen and four-tenths minutes of human labor to produce a pound of seed cotton. In 1895 it required but four and seven-tenths minutes. It has been calculated that the time saved in the production of our national wheat crop alone, by modern methods, over those used in 1830, is almost three billion hours of human labor per year or an amount equal to the time of 109,393 men working ten hours a day for three hundred days. As a matter of fact, of course no such thing as the production of one of our modern wheat crops was possible at all in 1830. The evolution of agricultural efficiency in this nation of excessive land opportunities has been indexed by a transfer from man power to horse power, and farm horse power to machine or mechan-

ical power. The result has been that agricultural efficiency has steadily increased while the percentage of rural population of the total national population has steadily decreased.

This brief resume of our short agricultural history serves to show how we came to have so many farmers, and why for the last half-century we have been losing many of them to city occupations.

I would say that our dilemma is like all dilemmas, one that can be escaped by dodging between its horns. We have built a *land speculation complex* and we have built an *urban complex*. Farming is not paying today partly because we have too much watered stock in land values and too much faith in the idea that in some way a deed to a piece of land ought to yield its holder a profit each year and a higher price in the near future. This complex is not a result of cold calculation. It is rather a case of abnormal psychology. It, however, has a century or more of successful operation lying back of it, and is for this reason pretty deeply woven into our whole national mind and particularly into our whole rural mind. Quite contrary to this is the urban complex which we have also built into our national mind. We assume consciously or unconsciously that city life is to be preferred to rural life and that residence in the city whether for purposes of work or leisure is destined to be the opportunity of an ever increasing proportion of our national population. City enterprises regularly outbid farming for man power and money power. People seem to be more willing and more anxious to pay well for the products of the city, but not for the products of the farm. A universal knowledge that these things are true has done much to give city populations, city standards of life, and city culture a dominant position in the thinking and ambitions of the nation. How to satisfy either of these complexes is not the agricultural problem before the nation, however. Rather than how to make it possible for all persons to live in cities, or how to translate the gains both present and future into land values, the problem is one of rural efficiency and rural welfare.

The problems of efficiency and welfare ought to be but two aspects of the same thing in a well-organized society. That is, there ought to be some means discovered by which the benefits resulting from increased efficiency could be generously reflected in the well-being of those responsible for the economic gains. Has this been true to any considerable degree in American agriculture?

American farms are producing more in annual products than at any previous time. American farmers are producing more per man than any farm population on earth. Furthermore, they are producing more per acre than any previous generation of American farm-

ers has ever produced. With a greater gross production, greater per-capita production, and a greater per-acre production of the very goods which the world needs most, it is a peculiar situation indeed that the farm standard of living should be consistently and perpetually below that of the city. Is the solution to such a situation to let farm production lay until the population of the world cries for food and cries in terms of higher prices? If I believed that our present price system worked by divine fiat, I would say yes. But having no such belief I am inclined to believe that other solutions can be found.

Assume that the day has arrived when land values have settled pretty accurately about the point which farm income justifies and that a few hundred millions of dollars now going into interest or rents are turned back into the standards of living of those who till the soil. Suppose, in other words, that land speculation has been pretty effectually headed off by methods of taxation. Suppose that farmers are universally organized into commodity-marketing groups and have learned to plant by the signs of the market instead of by the signs of the moon. Suppose that this has been going on long enough that they have developed business judgment and bargaining technique. Suppose we have finally recovered from our urban complex and have come to believe and know that rural communities are good places in which to live, that even men of leisure, brains and cultural ambitions can be both prosperous and polite while living in the open country. Suppose we ask whether the farmers are producing more food, clothing, and shelter products than society needs to keep its standard of living above the poverty line; whether low dividends in a business enterprise constitute a sure index to an oversupply of labor in that industry and especially whether high dividends constitute an open invitation for the foot-loose to flock into these enterprises? Suppose we raise the question of what industries the excess farm population ought to enter? Should they make cigarettes or cotton cloth or mine coal? Should they become retailers, wholesalers, manufacturers, bankers, oil, tobacco, or aluminum magnates, ditch-diggers, or just retired farmers? To rob the country of all of its bright minds and ambitious people will not help either to build up rural civilization or to feed, cloth, and shelter the increasing population of the earth. To drive even all the incompetents from agriculture into city manual pursuits might serve to break up a few labor unions, but it would not do much to raise the standard of living of either these incompetents or those for whose jobs they compete.

The farmer's task in society at large is to grow raw products to feed and cloth the world. If this is to be done adequately, there are

none too many farmers. The farmer's task as seen from his own viewpoint is to feed, cloth, and shelter his own family and in addition to this to guarantee them opportunities for health, education, recreation, and community life. In order to do this, he must collect more dividends out of the markets to which he sells his raw products. We are back to the dilemma—how can he produce enough to make it possible for others to live satisfactorily and how can he collect enough from others to guarantee a satisfactory life for himself.

Does this dilemma resolve itself into the issues of starving himself just a little more in order that others may live, or starving them just a little more in order that he may live? I believe not. It is a problem of the price system and the economic and social theories growing out of it. I do not mean by this merely the simple problems of making price by monopolies or by tariffs or export corporations. I mean that in some way, probably by economic education and economic group organizations, the farmers of the nation must put themselves into a position where they can know the "mysteries of the pecuniary calculus" as well as the mysteries of soil and seed. They must place themselves in a position to reap the same sort of rewards that corporate businesses have accomplished by a theoretical, if not actual, separation of production technique and money-making. This is not an easy task. It is the task of introducing and inculcating big business methods into agriculture. This task has been accomplished by a slow accumulation of knowledge which began with the rise of trade and commerce and developed rapidly in city enterprises after the advent of the industrial revolution. It will develop slowly in the field of agriculture for two chief reasons: first, because agricultural production becomes organized in large proportions only at the point of marketing; and second, because the trained leaders in agriculture are spending most of their time, energy, and money in working on the occupational or technical production problems of agriculture rather than on the business problems of agriculture, and furthermore, because many of those who are working on the business side of agriculture do not understand the intricacies of the price system. Until this task is accomplished, however, any one is justified in challenging the right of any one else to assert that present low farm income is a sign that 7.5 per cent, 10 per cent or any other per cent of our present farmers should leave the farms, cease to produce some of the prime necessities of life, and become hired manual laborers of the money-makers of the world.

I wonder if what I have tried to say is at all clear. For fear it is not, may I summarize and recapitulate. I have attempted to say that

our favorable land situation in this country led to an unprecedented agricultural expansion which carried with it three chief effects. First, the bringing of millions of acres of land under cultivation which, devoid of the psychology of the movement westward, would not have been included in our farm enterprise until some later time. Second, this land situation built a national land speculation complex which further encouraged the overexpansion of agriculture and pretty thoroughly complicated the economics of farm enterprise. Third, pioneer agriculture with its hardships but compensating promise of rewards, cast the rural standard of living on such a low plane that it has now become a factor in lowering the level of agricultural competition and has become a system of rural culture.

I have attempted to say that the coming of the industrial revolution has made it inevitable that an ever larger proportion of our gainfully employed shall be engaged in the refining and distributing processes of society, both of which processes are carried on in cities. These enterprises hold advantageous positions in that their entrepreneurs sit where they can look both ways—toward the producers of raw products in one direction, and the consumers of finished goods in the other. For this reason they have used the price and market systems of society to greater advantage to themselves than other economic groups can or have. Their superior dividends and greater cultural advantages have attracted the best minds out of the country, and these best minds have in turn helped to run the dividend-making machinery of these middle processes still higher. The result is we have built a thoroughgoing urban complex, based upon a belief and knowledge that city occupation and city life are, and inevitably must be, superior to farming and country life.

I have tried to say that I frankly challenge the present distributive and exchange system as perfect judiciaries, which can decide just how many farmers we need by assuming that farm prices alone are a sufficient criterion of judgment. Farmers are not dumb animals whose sole importance inheres in their capacities to produce raw goods. They are people. They constitute communities. They build civilizations.

I want to add this one broad sociological observation. As the development of agricultural efficiency advances, as farmers become capable of producing greater volumes of raw product with fewer farmers, there confronts them three possible ultimate depositories for the gains of their increased capacities: first, to let the gains of their improvements drift into higher land values; second, to let the results of their greater efficiency drift into the improvement of city life; and third, to discover knowledge and power by which they can convert

their agricultural gains into economic dividends and their economic dividends into rural standards of living.

We have our land speculation complex working in behalf of one of these alternatives, our urban complex working in behalf of another. We need a farm business and rural culture complex working in behalf of the third. Finally, and I think without question, I may assert that it is this third alternative with which the farmer is most concerned.

AGRICULTURE IN OUR NATIONAL POLICY—DISCUSSION

L. L. BERNARD.—I think Dr. Taylor is correct in throwing the burden of proof back upon those who would defend the present market and price system as the proper norm from which to measure the farmer's maladjustment to the existing system of production and distribution. This is the heart of the question under discussion. Both the economist and the sociologist have abundant evidence from the history of social theory that the man of the market has always been suspected of being something else than merely a public servant. Aristotle for the Greeks emphasized this point. It was a tenet of the economic theories of the Middle Ages and not unknown to the Physiocrats. And it has been reiterated in our day by the propagandists for co-operation and the farmers of the Non-Partisan League, and, I believe, suggested by the papers this afternoon. And yet for all that, it may be largely an economic heresy, fostered by the agricultural classes and the consuming public. But I am inclined to think there is more to this belief than some of the professors of marketing and finance are willing to admit.

Among the many other results of the Industrial Revolution was the creation of a very large class of people whose business it became to manage the market. The city itself grew up largely as a huge market as well as a place where power, machinery, labor, and raw materials could be brought together economically for purposes of manufacture, and as a center of distribution and transportation. Thus the city has come to be the center of manufacturing, of markets, of transportation, and of credits and financing. This last function—the capitalistic or financing function—has quite clearly come to dominate all of the other processes of production and distribution. There seems to be plenty of evidence that manufacturing corporations, railroads, and sometimes even international relations, are operated or controlled largely from the standpoint of maximum profits, rather than of maximum public service. This fact is apparent even from observation of the behavior of commission men who hold consignments until they become unmarketable and then dump them into the river or the cannary. Under such conditions it is neither the producer nor the consumer whose interests are considered primarily by our marketing system, but the financier's.

If some one should ask whose interest should we expect him to consider, I would answer just as frankly, no one else's. While this laconic conversation might end the argument from the standpoint of economic fact, it would only begin it from the standpoint of social welfare and justice. It is this fact which has lent so much weight to the propaganda of the radical for public ownership and other schemes for the socialization of industry and the market which perhaps look better in theory than in practice. There is no inherent reason why one group of individuals, becoming ever more highly integrated and dictatorial in powers and policies, simply because they are in a strategic position financially, should be allowed to determine the conditions and rewards of production and the price of articles of consumption to all other groups. It is of course possible to show that the marginal financier fares as badly as the marginal farmer or the marginal consumer. But this fact scarcely offsets the other fact that the really astounding rewards are today to be found in finance, and the further fact that even the financial

dictatorship is not operated from the standpoint of the long-time effectiveness of production and distribution, even in the interest of the financier, but rather from the standpoint of the promotor, who hopes to make his killing now and not in the next generation. It is scarcely likely that agriculture will fare very well under such conditions, whether it is overmanned or undermanned. Agricultural production is the farthest removed from the ultimate market and is therefore most easily subjected to piecemeal financial exploitation. This opportunity for the financial exploitation of the farmer operates at both ends, so to speak. On the one hand there is more opportunity to take toll for the overhead financial organizations at the various stages of the marketing and transforming processes. On the other hand, the farmer's isolation from marketing activities has rendered him, as Dr. Taylor has pointed out, peculiarly inept at perceiving and protecting his own interests. The remedy for this is probably in better organization, as Dr. Taylor again suggests, which has already gone forward considerably in the form of economic co-operation.

But, on the other hand, I have no intention of disregarding the possibility of rural overpopulation as an effective cause of the low standard of living and inadequate returns of the farmer. As Dr. Taylor says, the question of rural overpopulation is a difficult one to settle accurately. There is great danger of arguing in a circle about it. Are the farmer's low standard of living and his long hours and low pay due to overpopulation and consequent overproduction, or are they due to an exploitive market, which does not enable him to earn even the poor livelihood which he has without working for unduly long hours and at low pay? If he worked shorter hours and demanded more pay, would he receive higher prices for his products and be able to raise his standard of living. I doubt this. An undue scarcity of labor in agriculture has been observable for a considerable period of years, but this fact has not been of much assistance to the farmer in raising the prices he receives, although it has increased the wages he has to pay. But even if this hypothesis is correct, apparently the farmer will not be able to put the policy into practice. Agriculture is relatively a simple industry, it can still be entered on a status above that of the day laborer without a very large amount of capital, and the grade of skill required for its simpler processes is low. Consequently a great many people enter it or remain in it in preference to going into urban industry. The farmer's lack of cosmopolitan outlook and timidity also keep him on the farm when he might possibly do better elsewhere.

If what I have said above seems to imply that the financial element in the market sometimes profits from its strategic position at the expense of the farmer and other elements in the productive process, I do not mean to indicate that this is the only source of difficulty. Our society is now carrying an immense load of endowed leisure both in the form of vested personal income and in that of enormous institutional endowments. Not all of this leisure makes contributions to social production. If it is true that when many men consume more than they produce others must produce for them what they consume, then some group or groups are bearing a pretty heavy burden in our society. And I think one of these groups is the agricultural. Of course many endowed institutions, amusement enterprises, and people of leisure are making contributions to the productive process, but many

others are only consumers of the labor of others or are making an inadequate return for what they take. It is at this point that the economics of the market fails completely to give an account of the normal social adjustment process. It may be true that running a jazz restaurant or speculating in stocks is as productive economically speaking, or in terms of the market, as farming, but it is not as productive socially. If economics aspires to speak effectively from a national standpoint on the question of agriculture, it must adopt the social viewpoint with regard to the market.

O. S. MORGAN.—I shall confine my comments to Professor Black's admirably conceived and developed paper. In general I agree with the essentials as laid down in the paper. In the few minutes at my disposal I shall indicate emphasis rather than new points of view. The following two or three points are suggested.

1. Education. Discussing the concept of a national agricultural policy, Professor Black states in his paper such a policy "is not something which a few people can decide and impose upon the rest. But growth requires nourishment. The growth-substance of true national policies are *free discussion and education*." The educational methods proposed are good as far as they go. Greater emphasis, in my judgment, can be laid on getting this new economic education out to farmer families as they stay close to their farms. Campaigning to get farmers out to the state college and experiment station makes a desirable summer excursion but quite a different thing for effective progressive education of farmers. The problem of local and district production, marketing, etc., can be argued effectively for most farmers right at the incidence of these problems. Lectures and demonstrations at the state college are comfortable for college instructors, and call forth comments of amazement from the farmer. But as for truly educating the farmer for his own local two-hundred-mile distant agricultural problems it is often not exhilarating education but depressing diversion. Briefly I should recommend for our large commonwealths a reasonable attempt to provide local trial stations in farming to the end that state leaders be mentally comfortable in farm localities, as well as farmers as students.

The more abstract and difficult the discussion becomes the more imperative is it that the farmers receive instruction in their home locality, near the concrete materials. With a broadening of state policy looking to such a close-up of local agricultural districts should come a much greater use of existing partially used agricultural educational agencies now often unnoticed by state colleges as potentially strong features of a well-balanced plan of agricultural education.

In the college courses there is need for a faculty and student body devoting themselves practically to separate lines of study in the third and fourth years of a four-year college course in agriculture. I should recommend not only a separate course for political science and economics wherein would be studied all the extant pertinent facts and near-facts but also that a similar specialized course be provided in rural sociology in which rural institutions would be evaluated, even to the despised institution, "the

farmer's home-beautiful," rejected by early builders in agricultural economics.

I interpret the recent falling off in attendance on the four-year curricula offered by colleges of agriculture as signs that the country youths are fed up on the doctrine of production agriculture. As Dr. Black shrewdly observes the typical American youth may some day be a Congressman. So I heartily say let us have more A. B.'s in agriculture and fewer B. S.'s.

Account needs to be taken of an effective educational device that will teach agriculture of this broader sort from city centers. If the regulations governing our state and federal system of agricultural education do not permit of work by agricultural teachers in cities, then new regulations should be promulgated. Why not provide for rural life propaganda right in big cities? From my fourteen years' experience in this city, I am certain the city is a neglected rural field.

2. *Tariff.* Personally I lean strongly toward the agricultural policy that aims to build up a solid farmer population on a tariff-free basis. I favor quality countrymen, just as I favor quality city men. If in an agricultural era of higher tariffs, export dumping could be brought about in support of a policy of keeping up a theoretically more desirable farm population, I should heartily doubt its expediency. Such a policy might be transiently alleviative but it is not curative. For as Professor Black states in opposition to tariff on sugar beets, "tariff protection for a few years would be entirely rational; but because we are not rational, also extremely dangerous".

3. *Land Development.* I have no doubt but that the land development policy needs the careful study, survey, etc., set forth by Professor Black. A correct forestry policy is in the offing; likewise a well intentioned land settlement policy. But unless public officials charged with the administration of these sound policies are vigorously backed up in a national policy, it will fail under the disintegrating assaults of politics, commercial shortsightedness, and natural inertia. Scientists and public officials can with comparative ease hammer out such a land utilization policy. The tough bit of work lies just ahead in hammering the acceptable policy into the national and state practices.

4. *Taxation.* The tone of Professor Black's paper is optimistic. To some it may seem radical. I gladly join him in some of the radical points, e. g., where he states on taxation, "What is more rational and just than to take from the well-to-do in the cities in the form of taxes some of the fruits of the tariff and other advantages they have enjoyed, and use the funds so obtained to put agriculture on a basis of equality with the city?" There is no doubt in my mind but that money spent in better country life conditions will pay the whole country larger dividends than money invested on any other sector of our citizenry. And in all justice the rural section of our country is entitled to lavish constructive aids.

THE UNITED STATES TARIFF COMMISSION AND THE TARIFF

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When the United States Tariff Commission was established in 1916, the thing that most people hoped thereby to secure was to take the tariff out of politics. It was on this ground that the erection of such a body had been advocated for years. The expectation doubtless was in some respects utopian. In the nature of things it is impossible that the settlement of a bitterly disputed question of public policy should be abnegated entirely by the voters and by Congress and left to the judgment of any set of Commissioners, even the wisest and best reputed. But it might have been fairly expected that something should be accomplished toward lessening the influence which partisan rivalry and pecuniary interest had on the details of tariff legislation, and toward making the tariff, if not completely divorced from politics, at all events less subject to political maneuvering. And to that end a nonpartisan commission was thought serviceable.

Two views were then held of the functions of such a commission. The more extreme was that it should have power to fix rates. On the basis of some principle supposed to be "scientific" it should settle just what the duties were to be. The other view, more moderate, was that it should be a body for investigation and publicity—a "fact-finding" body, ready to put well-considered and accurate information before Congress. It should always leave to Congress the final decision. All sorts of persons—both business men and men in public life—advocated a commission of the first kind. But not only did it seem improbable that Congress would go so far as to abnegate its powers in this way, but the wisdom of such a step was also doubtful. A commission that was given such great responsibilities would necessarily incur bitter enmity, would be fiercely attacked, and might itself become a battle-ground for hostile partisans.

It was the second, more moderate plan that was followed when the Tariff Commission was established by the Act of 1916. The Commission was given sweeping powers of investigation, but no power to change the dot of an *i* in the tariff schedules. On this basis it functioned from 1917 to 1922.

The question at once presents itself: Why a separate body for this simple and restricted object? Could not the task of investigation have been entrusted to existing agencies? Various branches of the Federal Government—the Census Bureau, the Department of Com-

merce, the Treasury Department, the Interior Department, the State Department, the Federal Trade Commission—were already doing work of this kind. Most of them were doing it well, and some of them were doing it in precisely the field to be covered by the Tariff Commission. Why add another? The only possible ground—and this was the decisive ground—was that impartiality was to be guaranteed. The other agencies were subject to the vicissitudes of politics. The secretaries, assistant secretaries, and bureau chiefs, changed with every turn of the political wheel. Their attitude throughout was affected by their party affiliations. To secure, on this debated and delicate topic, data quite unaffected by any bias, and for this only, the Commission was set up. Careful provisions were made to ensure its nonpartisan character. The Commissioners were appointed for terms quite unexampled in the United States—twelve years as compared with seven years for the Interstate Commerce Commission and five years for Federal Trade Commission. No more than three of the six members of the Tariff Commission might belong to the same political party.

Six years later, in the tariff act of 1922, an entirely new set of duties was imposed on the Commission. Something like the first of the plans just mentioned was turned to. The Commission was made an administrative body, with functions of quite a novel sort. Under the so-called flexible provisions it was given the power, or what was meant to be equivalent to the power, of fixing duties.

This unexpected step—for myself I had never dreamed that Congress could be induced thus to divest itself of its plenary authority—is to be explained by the peculiar political situation of the time. The rampant protectionism of the Republicans had caused even their own chiefs to have forebodings. President Harding, always a compromiser, and quite innocent of any discernment on the real difficulties of the problem, was desirous of having something moderate and conciliatory to show. The Tariff Commission itself was divided; some members welcomed an increase of power and prestige; others were fully aware that troubles were likely to come. In the end, during the hurried hours of the closing sessions of the House, of the Senate, of their Committees, the fateful sections were worked in.

The provisions are familiar. The gist of them is that duties are to be adjusted on the basis of differences in the cost of production in the United States and competing countries. If the duties exceed this difference—if the duties are more than enough to equalize costs of production—they are to be reduced. If they are less than sufficient for equalization, they are to be raised. To prevent highly disturbing changes in rates (I imagine this to be the reason) the power of change was somewhat limited; the increase or decrease was not to be more than

50 per cent of the rates of the tariff act of 1922. As is usual in legislation of this type, the delegation of power was in form to the President. It was he who should "upon investigation" order the change. But it was provided that the Tariff Commission should make the investigations "to assist the President in ascertaining differences in cost"; and he was to order no change until after the investigation by the Commission. It was designed by the framers of the provision that the Commission should virtually be the duty-adjusting body. And the intention was to get something quasi-automatic. Ascertain the facts; find whether duties are or are not in accord with the principle of equalization; adjust accordingly. The mechanism was expected to work quite independently of the opinions or prejudices or party affiliations of the Tariff Commissioners or of any other persons.

Of the merits of this scheme on grounds of economic principle I shall say nothing. It has a curious vogue, not in the United States only but in other protectionist countries as well. Elsewhere I have stated why it seems to me quite untenable on general economic reasoning, and indeed, if carried to its logical end, is quite inconsistent with the continuance of any trade between nations at all.¹ But I shall ignore these disputed matters of principle, and confine the present discussion to the administrative aspects alone, and to the practicability of the arrangement as a *modus vivendi* in tariff adjustment. More particularly I wish to direct attention to the way in which the scheme has affected the nonpartisan character of the Tariff Commission—the very end and object of its establishment.

Undoubtedly the proponents of the plan thought that the ascertainment of costs, and of differences in costs, was a simple matter. Cost accounting processes, it was assumed, are well developed and cost accountants are fairly plenty. Business concerns themselves are constantly reckoning their costs. Why should not a government agency do the same thing? And the economists have done their part in encouraging such expectations. We had long spoken of costs as a simple and almost elementary matter, and of the relation between cost and price as definite and clear. True, we have pointed out the fundamental difference between money costs and "real" costs. But we have tacitly assumed that money costs in themselves—the only costs to which the business world or the legislatures pay attention—can be ascertained easily enough, and that they present no problems that would embarrass an administrative body or compel it to choose between different possibilities and conflicting views.

¹The reader who is interested may turn to what I have said in the paper on "Cost of Production and the Tariff," in the volume entitled *Free Trade, The Tariff and Reciprocity*, Chapter VII.

Of late, however, we have learned that things are not so simple as all this. The experiences of the war, and the difficulties then encountered in trying to fix "fair" prices, did much to open our eyes to the intricacies of cost ascertainment. The investigations of our government bureaus, of the Federal Trade Commission, and of the Tariff Commission itself, have added to our information, also to our uncertainty. Let us consider some of the problems which have to be faced and solved before we can lay down what is the cost of a given article in the United States and what its cost in a foreign country.

Take first, cost of production for agricultural products. On the general reasoning which we develop in our books, we should expect uniformity of money costs (not of "real" costs). From the accountants' and farmers' point of view the rent of land is to be included in money costs. This being done, rent ought to act—on our general theorizing—as an equalizer or stabilizer; and money costs (or expenses of production) should be uniform; certainly in a given country and indeed, following our logic to the end, in all countries. Now, such figures as we have do not look that way, at all events for the United States. I will not stop to inquire into the explanation of the discrepancy between the theory and the figures, or indicate why I think the case not so damaging to the theory as at first blush it seemed to me. What here is of significance is that such figures as we do get show varying costs even in money terms. Which cost shall then be used? If the average, what sort of average? The marginal cost? This is what most persons trained in modern economics would probably say. But where place that margin? At the "bulk-line," or where? One must choose, and in making the choice, must exercise judgment, discretion, intelligence. The proper figure does *not* automatically emerge.

Further: What account shall be taken of seasonal variations? In a good year, costs per unit of yield will be low; in a poor year, high. And of course the good and bad harvests do not come at the same time in different countries. This year Canada may have a good season and low costs; the United States a poor season and high cost. Next year it may be just the other way. Shall a supposed normal or representative year in each country be taken for the purposes of comparison? or an average of several years? The Tariff Commission in its investigation took a three-year average, the years for 1921-1923. The period proved not at all representative; crop conditions happened to be unusual. Should we take a five-year or ten-year average? What have the meteorologists and statisticians to tell us on cyclical weather changes and on crop cycles? Obviously we have intricate questions, not to be settled offhand by pointing to a row of figures.

I will not dilate on other difficulties. There is the element of joint cost, almost always present to some extent in farming. Even with high specialization there is crop rotation, with interlinked products. Further, the way in which to reckon the "value" of the farmer's own labor involves perplexing questions of social as well as of economic accounting. Not least, there is the practical difficulty that the cost reckonings of farmers are rudimentary, prejudiced, and often ludicrously bad. At their very best, it is very questionable whether we can apply to agriculture the rigorous accounting practices of factories and large-scale trading. The unbiased observer can not but shrug his shoulders over the figures of farm costs which are so glibly and confidently cited.

When it comes to manufactured products we may seem to be on firmer ground. In some ways we are. But perplexing questions none the less confront us here too. Economists and statisticians now have more exact information than before on a phenomenon long familiar in a vague way: that at any given time the money costs (and for that matter, the real costs) of the output of any manufactured article are not at all uniform. The several constituent parts have costs which vary from low to high, and often with a surprising spread from low to high. The cost curve has all sorts of shapes, but it is never a straight line; it always has, in the language of economic theory, a positive inclination. And the shape it has in one country is not the same as in another. I will not enter here into an explanation of these differences, or of their relation to the problem of the representative firm; nor stop to consider whether over long periods we might find something that looked after all like uniform costs within each country. These are moot questions in economic science. That they *are* moot questions indicates how perplexing must be the problems that confront a supposedly impartial and judicial body which has to lay down what are the actual differences in cost between the United States and foreign countries. Again we have to ask, which cost is to be selected for the international comparisons? The average and if the average, that of a given year, or a given series of years? The marginal cost, or the "bulk-line" cost; and if so, where locate the margin or bulk-line?

The point which is important for my present argument is that any decision which is finally reached—any figure which purports to state the differences in cost—necessarily involves the exercise of judgment. No exact and certain conclusion can be reached even by the most perfectly conducted investigation. There is always the possibility of choice between different results, according as you select one or another method of averaging, cover one or another period of time, put

your marginal produce of your bulk-line at a higher or lower point, consider this figure or that to be the representative one. Even the most competent and impartial Tariff Commissioner will often have to confess that there is no one figure which can be unqualifiedly said to be *the* accurate one.

And from this fundamental difficulty follows inevitably another. There is play for preference, bias, prejudice. Discrimination must be exercised between different conclusions, any one of which can be defended on plausible grounds. Under such circumstances it is not in human nature to be entirely uninfluenced by one's own opinion on the desirability of a change upward or downward; that is, on the general economic effects of making duties higher or lower than before. I have earnestly tried, for myself, to examine the tariff controversy as objectively as possible. During my term of service on the Tariff Commission it was my constant endeavor to handle the matters of investigation and administration which came before me with absolute disregard of any opinion I might have on the disputed question of public policy. Yet if I should be called on, under the flexible provisions, to render a decision and fix a figure, I cannot feel absolutely sure that some general bias against an extreme protective system might not enter and prevent me from being as rigorously impartial as the case demands. If a Commissioner should happen to be a free trader of the rampant sort, he would be able to justify to himself, and to others, the choice of a lower rather than a higher figure of cost difference, and thus the fixing of a lower duty. If he should happen to be a stalwart protectionist, to whom ample protection seemed the one and only policy for conserving national prosperity, he would as inevitably lean toward the higher figure.

4. Still another consequence must be faced. It becomes important to the protectionists and to the free traders to have a man of proper sympathies on the Commission. If an administration represents a party pledged to the policy of high duties, it will want men on the board who will share its views, and will make the right sort of choice in doubtful cases; and the other way, if the Administration leans to low or to moderated duties. Since no clear, simple, unmistakable conclusion can be reached even by the most expert statistical and economic research, a ground arises for selecting Commissioners of the desired sympathies. In other words, these new functions and duties of the Commission run counter to the very object which was sought in its establishment. The findings of the Commission are likely to be affected by the political and economic opinions of the members; and appointments to it are likely to be made with an eye to their opinions. If a Republican Administration puts a Democrat on the board, in ac-

cordance with the requirement of the law (for representation of each party), it will select a Democrat with protective leanings. And if a Democratic Administration puts a Republican on, it will select an insurgent rather than a true blue protectionist. The Senators, the party notables, the interested business leaders, will bring to bear all possible pressure toward securing the appointment of their man. And then the other activities of the Commission—those of investigation and report—come under a cloud. Its conclusions on any subject whatever become open to suspicion. The suspicion may be quite unserved. But suspicion will be inevitable; many people will shrug their shoulders when reading this or that report issued by the Commission. The whole trend of the situation must be, not to take the tariff out of politics, but to drag the Tariff Commission into politics.

It must be admitted that at best there is difficulty in maintaining the nonpartisan character of such a body as the Tariff Commission. The temptation will always be present to use it as an instrument for supporting and carrying out a given policy—one of high duties or of low ones, of protection or free trade. A difficulty of the same kind has appeared, and has not been eliminated to this day, with the commissions of earlier date—the Interstate Commerce Commission and the Federal Trade Commission. The appointments by the successive presidents to the various commissions have not been made entirely with a view to ability, training, and open-mindedness. Some regard has been had to the known views of the appointees on disputed questions. It is with regret that I am compelled to state my belief that in recent appointments to the Tariff Commission this process has been carried to a dangerous and lamentable extreme. The endeavor seems to have been to make it not an organization for unbiased inquiry on the facts, but one for preparing such recommendations as are known in advance to be acceptable to the party and the administration in power. Whether the same tendency would have appeared in the absence of the flexible provisions, one cannot say. Something of the sort began even before they were put on the statute book. But the new powers and duties have added greatly to the temptation to pad the Commission, and so have made it more and more difficult to maintain its judicial character, its prestige, and the respect of Congress and of the public for its work.

I will not undertake to predict what the future will bring. The flexible provisions may be repealed. The Tariff Commission may be completely abolished and the entire experiment admitted to be a failure. Or the Commission may be remodelled; conceivably it may be incorporated in the Department of Commerce. What it is thought best to do will depend on one's hopes, fears, wishes, regarding the ameli-

oration of legislative and administrative ways in Washington. I am not so pessimistic as to believe that improvement at Washington is impossible. But it proceeds slowly, and in the case of the Tariff Commission there has been hardly a sign of it. The Commission has been handled by the last two Administrations in such a way as to become a disorganized body. This much alone seems to be clear. Unless the Commission can be kept thoroughly nonpartisan, the reasons for its existence as a separate body are gone. And I am constrained to believe that it can not be kept thoroughly nonpartisan so long as it has functions such as those imposed by the flexible provisions.

Next, and last, I would ask your attention to another and more general aspect of the tariff situation; namely, the importance of stability in commercial policy and the way in which stability may be reached.

People are always much under the influence of the needs and difficulties of the moment. It is inevitable that, on tariff matters as on others, they should clamor for some course of action that seems to meet a pressing exigency. Hence such legislation as the Emergency Tariff Act of 1921, which proved, as cool observers quite expected, no more than an empty flourish, entirely futile as a remedy for the "emergencies" of that time—the farmers' plight. Hence also, to come to the case in hand, the endeavors to bring about, under the flexible provisions, changes in duty now up, now down (usually up), according to differences in cost alleged to exist for the time being.

It would seem obvious on a moment's reflection that it is impossible to readjust duties every year or two on the basis of momentary differences in cost. It takes at least a year, commonly more, to make the needed investigations, to collect and summarize the results, to weigh the conclusions. By the time an adjustment—at best no more than roughly accurate—has been made, conditions will have changed. Complaints will again be heard—and will again be justified—perhaps from those who say the rates are too high; perhaps from those who want them made still higher. Demagogues and loud-mouthed spokesmen will find opportunities to advance their own fortunes by parading as saviors of a perilous situation. There will be constant uncertainty, constant vacillation; the more so if the attitude of Congress, of the Administration in office, of the Commission itself, is subject to change at an approaching election. The blessed tariff question thus remains always up, is always unsettled, is persistently a disturbing element not only in politics but in business also.

I am convinced that it is much better to settle rates once for all. Let them be fixed and remain undisturbed, either by legislation or by administrative action, for a considerable period. If one is determined to

establish a protective policy based on the plan of equalizing money costs of production for a large range of articles, the thing can be done with as near an approach to accuracy for a fairly long time as for every year or so. If the tariff rates are in general accord with the *status quo* in regard to differences in money cost (and this is in practice what the whole arrangement comes to) minor maladjustments will figure no more in business operations than any one of the dozens of contingencies which business constantly faces.

Industry adjusts itself to almost any conditions that are settled and reckonable. The attempt to adjust the rates again and again to the irregular ups and downs of trade means that there is no settlement at all—nothing to go by. Frame your legislation, if you will, on the general principle of equalization of costs. But do it by considering those general differences which are persistent and which affect the main course of industry and trade. Get the best information you can about the rates which will come as near to conformity with your principle as is practicable. Use your Tariff Commission for getting your information. Nay, let the Tariff Commission continue to keep its eye on the march of events and the underlying trends. But make no change at short notice, or to meet hard times, or to pacify a disturbed constituency. When you make a change, do it carefully, consistently. And then let things stand. Do not encourage a steady string of appeals to Washington for mending matters which can be put to rights by no financial legerdemain, by no regulatory commission, and by no tariff manipulation.

It is hardly necessary to add that stability is more likely to be attained if there is nothing extreme or provocative in the tariff rates. Extremes provoke reaction, and reaction is likely to go far. Let your legislation be framed with an eye to permanence, deliberately, intelligently, cautiously. If the tariff is to be a protective one—and I see no prospect of any other kind for the visible future—let it be a moderate one, not raised higher than is in the long run necessary for the objects deemed essential.

By following some such policy as this—a settled tariff, no extreme rates, no flexible provisions, no invitations to perpetual readjustment, no manipulation pretending to attain the impossible—it may be possible to lessen the influence of the tariff on politics and of politics on the tariff. I do not say that it will take the tariff out of politics. As I intimated at the start, it seems to me impossible that any large question affecting the general interest should remain outside the political arena; nor should it do so. But it is neither inevitable nor desirable that a prosaic and matter-of-fact question like that of protection and free trade—and to my mind that question is

very prosaic—should be perpetually stirring people to heated controversy and to hasty and impatient action. Is it quite utopian to hope that some acceptable settlement can be arranged for considerable stretches of time, and public attention given to other matters of greater permanent concern?

The preceding discussion has not touched at all on the fundamentals of the tariff debate. It has been concerned with questions of machinery, not of substance. The Tariff Commission, as its functions are here envisaged, may indeed aid in taking the tariff question out of politics, in the sense that, once a given industrial policy has been decided on, the Commission may promote the application of that policy in well-considered ways. But the Commission has nothing to do with the question, what sort of policy shall be followed, whether one of free trade, or of moderate protection, or of very high protection. It is not expected, for example, to consider whether the plan of equalizing costs is wise. If that plan is settled on by Congress, and the Commission is called on to apply it, the task should be performed as honestly and with as near an approximation to the long-run situation as the circumstances permit, with no glozing over the difficulties and uncertainties, no pretence of success in inventing any automatic mechanism of adjustment, and with a disregard—so far as it is humanly possible, of individual opinion or prejudice on the controverted questions of principles. This is a comparatively modest function; yet it is difficult enough, and it may be highly useful.

On the matter of principle, however—on the controversy between protection and free trade—no Commission and no “expert” body can settle anything. Not even the professors can settle it. Each one of us can reach a conclusion in his own mind, and very likely feel quite sure he has reached the right conclusion. But legislative policy will be settled by the opinions and conclusions of the mass of voters. These, it must be confessed, will be influenced much less by the severe reasoning of economics than by party tradition, vague national sentiment, specious appeals, stirrings of moral feeling, the supposed needs of the moment. As I have already intimated, we have no reason to expect at any time in the visible future a radical change in our tariff policy. This country seems likely to remain for a long time protectionist; not perhaps as rigidly and unyieldingly so as some of our valiant protectionist friends hope and believe, but much more so than our valiant free traders wish.

What the ultimate future will bring it would be idle to try to guess. We may hope for better international relations in every regard, and may welcome every step that way. The steps will be gradual, per-

haps slow; but, let us hope, in the right direction. They will be in the right direction, let us also hope, as regards the interchange of goods between countries. Perhaps it seems as hopeless to expect ultimate free trade as it does (or did?) to look forward to ultimate disarmament and ultimate peace. But let us recall what the great free trader himself, who was also the shrewdest of observers, said one hundred fifty years ago. Adam Smith at the close of his attack on the mercantile system, remarked: "To expect that the freedom of trade should ever be entirely restored in Great Britain is as absurd as to expect that an Oceana or Utopia should ever be established in it." Seventy years after this was written, Great Britain went completely over to free trade. Can any one guess what the United States will be doing seventy years hence?

¹*Wealth of Nations*, Book IV, Ch. II, *ad finem*.

THE FLEXIBLE TARIFF AND THE SUGAR INDUSTRY¹

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On November 16, 1922, shortly after the enactment of the Tariff Act of 1922, a petition was filed with the Tariff Commission for an investigation under the "flexible" provision of the law, into the rate of duty on sugar. For a period of about two and one-half years after that date until the President on June 15, 1925, publicly announced his decision on the Commission's report, the press followed the proceedings closely and considerable public interest was aroused. General interest in the case was augmented by the fact that the conduct of the investigation was made an issue in the last presidential campaign. It appears that the operation of the flexible provision of the law is being judged almost entirely by the outcome of this investigation, the most important conducted under the Commission's new powers.

The economist is primarily interested in the significance of the sugar investigation with regard to two phases of the tariff problem:

First: The validity, or, according to the economists who have recorded themselves on the subject, the *invalidity*, of the economic theory embodied in Section 315.

Second: The possibilities in the application of the law, once Congress has established it as the basis for tariff adjustment, disregarding its theoretic value.

On December 1, 1923, the Tariff Commission issued a mimeographed preliminary statement, embodying some of the results of its investigation into cost of production in various sugar producing regions of the United States and Cuba. No interpretative analysis or comment was submitted but only the bare statistical data which the Commission was careful to state were prepared for the purpose of facilitating the forthcoming public hearings, and were to be considered tentative only. The statement was nevertheless given a degree of attention utterly out of proportion to its significance. There was rejoicing among those who had been opposed to the flexible provisions of the law when it was observed that the statement consisted as one editor expressed it, "of a welter of statistics from which almost any conclusion could be drawn."² Philip G. Wright wrote a few months later:

"The investigation was comprehensive and thorough; the Tariff Commission's agents visited the factories and inspected the books; returns

¹The writer of this paper was Chief of the Sugar Division of the U. S. Tariff Commission during 1923 and 1924, the period when the Commission's investigation of the sugar tariff was conducted.

²Editorial in *Baltimore Sun*, Dec. 5, 1923.

were obtained from factories covering a high percentage of the output in all regions. It would seem that if an equalizing rate could be determined by a mathematical process the data were adequate. Yet, by the irony of fate, the Commission could hardly have chosen two successive years which would throw so wide open the doors to controversy in regard to so many questions... Differing answers to each of these questions would result in widely differing 'equalizing duties'... It is evident that interpretation of the act leaves considerable latitude to the Commission."³

No rejoinder was made by the Commission or members of its staff to the above and other statements. The Commission was somewhat timid in the execution of its new responsibilities and deemed it unwise to issue any explanatory public statements. It is therefore largely responsible for a great deal of the existing confusion with respect to the operation of the law. Nevertheless it is unfortunate that the economists who were most competent to analyze the statistical data and discover any possibilities in the application of the law, preferred to utilize these data issued by the Commission to substantiate previously expressed views on the impracticability of the law.

Let us examine this fundamental difficulty of "considerable latitude" which the Commission, at first glance, seems to have in interpretation of cost data. Take for example, the problem of the number of years upon which the comparison of costs should be based. The objections to the use of one year's cost data as a basis for determining cost differences in the sugar industry were so obvious that no economist of the Commission's staff advocated it, nor any of the five commissioners who participated in the preparation of the reports to the President. In a year when the market price of a commodity is relatively low and profits are small, certain items of expenditure, repairs, and maintenance outlays, for example, are reduced to a minimum. Such reduction of expenditure is compensated for in the following year if prices are higher. In a commodity, such as sugar, in which the expenditure for raw material (cane or beets) constitutes the largest single item in the cost of production, the use of a single year's cost records as a basis for determining differences in cost, becomes an absurdity. If agricultural expenses are taken as the cost of the beets or the cane, the cost per unit of product is affected by changes in the yield per acre of cane and the sucrose content of the cane. On the other hand, if the price paid by the factory to the grower is taken as the cost of the raw material, the cost of the finished product is accidentally high in one region and accidentally low in another region in the same crop year, since it is the customary ar-

³Wright, *Sugar in Relation to the Tariff*, p. 138.

rangement in the sugar industry to pay for the cane or beets in accordance with the changes in the market price for sugar, and such payments are made at different seasons of the year in the various regions, at varying sugar prices.

One year is clearly out of the question. On the other hand, administrative difficulties in securing sufficiently complete cost records over more than five or six years automatically presented an upper limit to the number of years which could be used. Between the upper and lower limits thus defined, careful inquiry into agricultural conditions and accounting practices in the various regions of sugar production discloses other restrictions on arbitrary decision; namely, that no parity for the comparison of cost is possible without taking a number of consecutive years, and that the longer the period taken, the more accurate the comparison. Only a brief summary of these practices can be given here.

In Louisiana the sugar cane growers divide their cane acreage into approximately three parts, one part of which is devoted to plant cane, another to stubble cane, and the remainder to restorative crops (mainly cow peas and corn). The expenses incurred in any one crop for preparing and planting or for the restorative crops are not chargeable entirely to the sugar produced in that year but in definite proportions to the sugar produced from the plant and stubble cane respectively over a period of three years. The books of most of the companies, however, do not show such exact allocations of expenditures but merely give the expenditures for each fiscal year. A similar situation prevails in Cuba and Porto Rico. In Hawaii it generally takes eighteen months from date of planting to the first harvest and the first ratoons may be cultivated for a year or two years before cutting. Ordinarily in Hawaii cane is seldom grown beyond the second ratoon, although there are some plantations that have six or more ratoons upon certain fields.

Most of the companies in Hawaii, unlike other regions of sugar production, keep accurate records for ratoon crops of the cumulative costs from the time of the first "cutting back" to the date of harvesting and for plant cane, of the cultivating expense to time of harvest without regard to the year when such expenditures are incurred. Some companies even allocate the first preparing and planting expense in proper ratio to all the ratoon crops which are produced from the plant cane; but in the majority of cases the preparing and planting expense of each calendar year is charged to the cost of all the cane harvested in that year. The beet sugar industry, on the other hand, presents no such accounting problem. The beets are planted in the spring and harvested in the fall; so that the expendi-

tures incurred by the companies in growing beets are almost entirely confined to one fiscal year.

Because of the above facts and others which can not be considered here, discretion in the choice of the number of years which can be used as a basis for cost comparison is sharply limited, although the crude data considered without relation to the accounting, agricultural, or economic peculiarities of the various regions of sugar production present numerous possibilities. It was from observation of these crude preliminary data issued by the Commission that Dr. Page wrote:

"Consider, for example, what would have happened in the case of sugar if the rates on raw sugar had been adjusted to the difference between the cost of producing sugar in Cuba and in Louisiana during the recent years for which the Tariff Commission has computed costs. Comparing in each case the Louisiana crop with the following Cuban crop the difference expressed in cents per pound would have been for 1919-1920, 6.588; in the following year, 6.269; for 1921-1922 it was 1.806; for 1922-1923, 1.246. For the crops of 1923-1924 the costs have not yet been computed, and it would, therefore, be impossible to forecast what rate would be necessary to 'equalize' them. Such figures make the proposal of a flexible tariff an offense to sound principles of business and an insult to common sense."¹

The flexible provisions of the law, if applied as thus indicated would indeed constitute an absurdity. But such application of the law assumes that the Tariff Commission and its staff make no attempt to discover the facts about the industry which the crude cost figures gathered in the field or by schedules reflect. Take for example, the bizarre figure of 6.588 cents, the difference in cost shown for the crop of 1919-1920. In the first place, it was based upon a tentatively accepted method of conversion of the numerous Louisiana grades of sugar to raw sugar parity, which had been used in former governmental cost studies, but was discarded as unsatisfactory before the final report was prepared. The older method exaggerated Louisiana costs. Secondly, expenditures for cane in Louisiana were artificially raised in the 1919-1920 crop by governmental action. In November, 1919, it will be recalled, the Attorney General of the United States fixed a price of seventeen cents per pound for the "plantation clarified sugars" produced in Louisiana acting under the provisions of the Lever Act. The factories in Louisiana purchased their cane for the 1919-1920 crop from the growers on this price basis, in accordance with the long established mill practice of paying for the cane in accordance with fluctuations in the market price of clarified sugar. The Cuban factories, on the other hand, which purchase the bulk of their

¹Thomas Walker Page, *Making the Tariff in the United States*, p. 62.

cane supply from the growers in accordance with fluctuations in the price of raw sugar at Cuban ports, the so-called "promedio" price, based their payments to the growers on an average price of about eleven and one-half cents. In consequence, the expenditure of the companies, *not the real costs*, show an abnormal difference in the two regions of production in this year. Obviously, it is the function of the Commission to ferret out and apply these more obscure but relevant facts. In this way, an "automatic" answer as Professor Taussig expresses it, is furnished to a number of the most perplexing questions which arise from the cost data secured in a given investigation.

Other questions, it seems to me, are answered by application of the ancillary provisions of the law. As an illustration, we may consider the much-disputed question of the raw material cost in the sugar industry; whether the price paid by the factory to the grower for his beets or cane shall be taken as the cost thereof, or the grower's cost of production as determined by an agricultural cost survey. A reading of the law, it seems to me, indicates an automatic answer. Subsection (C) of Section 315 of the Tariff Act of 1922 states "that in ascertaining the difference in cost of production... the President, in so far as he finds it practicable, shall take into consideration... any other advantages or disadvantages in competition." If, therefore, the factories in Cuba and Louisiana are enabled to purchase the major portion of the raw material from the small grower who has no alternative crop, at a price below or just at cost, and to bring sugar manufactured from such advantageous purchase of raw material into the market for competition with the product of the beet sugar mills which are unable to obtain their raw material without giving a profit to the beet grower, *who has alternative crops*, a distinct advantage to the Cuban or Louisiana producer results, and conversely. Here is an advantage which flows from the peculiar organization of the industry in one region as compared with another. If, therefore, the costs of sugar production f. o. b. mill are based on the agricultural costs, as ascertained from a large number of individual growers in the United States and Cuba, and it is found that the Cuban industry over a period of years has such advantage or disadvantage of let us say, one-sixteenth of a cent per pound of sugar produced, this amount must be debited or credited to the first cost differences found by comparison of agricultural costs in the two countries. The law may be theoretically in error, in requiring such procedure, but can there be any question as to its direct and automatic application in the present instance? It is obviously immaterial then whether the agricultural costs of the two countries are first compiled and adjustment later made for the difference in the growers' profits or losses, or whether the

price paid, which is an arithmetical composite of the two factors, is taken in the first instance.

Although the answer to the question seems to follow from an automatic application of one of the provisions of the law, it will be well to examine certain theoretical questions which have been raised by economists with respect to this phase of the application of the law. Mr. Wright, for example, says:

"The method pursued by the Commission in obtaining the cost of producing sugar is open to the objection that except in cases where the factory produces its own cane or beets, no account is taken of the actual costs in the agricultural stage of the industry. In place of these agricultural costs it substitutes as the cost of cane or beets the amount paid by the factory to the independent grower. . .

"In the discussion of the sugar duty in Congress so much emphasis was placed upon the protection of the agricultural stage of the industry that it is evident that members held the view that it was the duty on sugar rather than the duty on cane or beets which was to afford efficient protection to the farmer. It would therefore seem a logical conclusion that in comparing costs under the flexible provision of the tariff the Commission should have treated the industry as a unit and ascertained the actual costs in its agricultural as well as in its manufacturing stage."

The above criticism, and others of a similar nature, arises from the failure to discriminate clearly between the total cost of production and the element of profit and loss. Substitution of the price paid by the factory to the independent grower for the agricultural cost of the cane or the beets, does not constitute neglect of the farmer in tariff making based on cost differences, but means on the contrary that due attention is paid to the existing differential in the element of profit or loss of the American and foreign grower instead of assuming an imaginary status which would exist if factories paid growers according to cost of production in the United States and abroad. It is a matter of simple arithmetic to show that if the profit is greater in the United States than in the foreign country, the use of the price paid, rather than the method of agricultural costs, results in a showing for a higher tariff and constitutes to that extent an advantage to the American farmer, and conversely.

A more significant objection to the use of the price as the raw material cost is that if the price of sugar is increased by the tariff, the cost of production will also appear to have been increased and the increased duty thereby justified. Before analyzing this objection it must be pointed out that only a portion of the duty can be justified and that even if the domestic price is not increased by the tariff, the cost difference will be widened and the increased tariff partially justified

anyway. For although the actual methods of payment for beets or cane differ in the various regions of sugar production, the essential factor is that, in Cuba, the price paid the grower for cane varies with the f. o. b. price at Cuban ports, whereas in the United States it is based on the duty-paid price. It follows then, that if the Cuban producer pays a given increase in tariff, because of a weak bargaining position during a given period, the f. o. b. price in Cuba is reduced and the factory payments to the grower for cane lowered. If, on the other hand, the American buyer pays the increase in tariff, the duty-paid price in the United States is correspondingly higher and the factory payments for cane or beets in the United States increased. No matter whether the Cuban producer pays all the increase in tariff or the American buyer, or both in part as often happens, the net result is to widen the difference in apparent costs of the two countries.¹ But since the factories in Cuba, taking the Island as a whole, pay the growers about one-half of the current market price of sugar per pound in return for the cane while the factories in the United States return to the growers varying proportions in different localities, but never much more than half, only a portion of the increase in duty can be reflected in the difference in cost. Thus modified, the difficulty still remains in the use of the price paid by the factory as the raw material cost. Can it be overcome by statistical methods?

In order to answer this question, it must be remembered that a rate of 1.0048 cents per pound had been in effect on Cuban 96° raw sugar since 1913 and that the first change thereafter was in the emergency tariff rate of May, 1921. The industry in the long intervening period must have adjusted itself to the existing tariff rate of one cent per pound and the basis of payment for cane and beets in the United States and Cuba must have been fixed through bargaining between the growers and factories in accordance with the tariff rate prevailing. It is only necessary therefore to consider the increase of sixty cents per one hundred pounds imposed in May, 1921, and the increase of sixteen cents per one hundred pounds imposed in September, 1922, which were too recent at the time of the Commission's investigation to have been fully embodied in the cost structure of the industry but were nevertheless reflected in the expenditure figures obtained in the United States and Cuba.

Following a careful statistical investigation in the spring of 1923, the Tariff Commission in a unanimous report² to President Harding pointed out that the increase of sixteen cents per one hundred pounds of the tariff act of 1922, although reflected in the duty-paid price of raw

¹A similar analysis may be made for the effect of decreased tariff rates.

²U. S. Tariff Commission, "Relation of the Tariff on Sugar to the Rise in Price."

sugars in the last week of September, 1922, was not reflected in the prices of refined sugar until the beginning of March, 1923. Since all the cane purchased by the factories in Louisiana was paid for prior to March, 1923, this tariff increase could not have been reflected in the costs reported by the companies for that crop. Also the 1922 crop costs for Porto Rico and Hawaii could not have reflected this tariff increase for these crops were completed before September, 1922, when the increase first became effective in the duty-paid price. Similar comparison is possible of the date when the Emergency Tariff increase of sixty cents first became effective in the price of sugar, with the period of expenditures for the crop in the various regions of sugar production. It becomes clear from such analysis that the tariff increases of 1921 and September, 1922, were reflected in whole or in part in the following instances:

- (1) Bonuses paid to beet growers for 1922-1923 crop (both increases in tariff).
- (2) Price paid for purchased cane, Louisiana, 1922-1923 (Emergency tariff increase only).
- (3) Payments for purchased cane, 1922 crop in Porto Rico (Emergency tariff increase only).
- (4) Cuban 1922 crop, cost of purchased cane decreased somewhat. (Emergency tariff increase only).

Once the reflection of the tariff increase due to the use of the price paid as the factory cost has been thus specifically located, it is possible by ordinary mathematical processes to eliminate it in the cost comparisons.

The above outline of the method by which certain disturbances due to a recently imposed tariff can be eliminated from cost data, has an important bearing upon an oft-repeated theoretical objection to the use of cost of production differences as a basis for tariff adjustment. It has been frequently stated that an industry will adjust itself to any tariff and that cost differences found by investigation a few years after a new tariff has been imposed will justify that tariff. No doubt, this objection is valid in a theoretical discussion of the phrase "cost of production" apart from any specific law or situation. With regard to the present law, the objection is answerable. Section 315 of the Tariff Act of 1922 does not require that a period of time shall be allowed to elapse before any investigation is undertaken under the law, during which interval the new rates imposed in that Act may be justified by changes in costs. It requires application of the law whenever the rates established in it are not in accord with differences in costs and a definite administrative procedure is prescribed for determination of the facts as to cost differences. It

follows then, that any investigation under Section 315 is conducted to determine the adequacy or inadequacy of a given rate in the law in equalizing cost differences and correction must be made for any disturbance in the industry caused by the imposition of the new rate itself. Perhaps the most illuminating feature of the sugar investigation has been the demonstration that such a correction can be made in this industry by statistical methods. Only one factor has been considered above. If time permitted, others could be treated. It may be possible to apply similar methods to other important industries affected with a tariff interest.

Time precludes discussion of other problems of theory or application involved in the sugar case. I trust enough has been said to indicate that technical obstacles which arise from the application of the flexible tariff provisions of the law are not as great as they have been made to appear. Thorough and careful analysis of the facts in an industry, judicial examination of disputed legal questions, and the requirements of practical administration establish the boundaries within which the law may be applied objectively by a commission or board even if its members are not free from some degree of bias in their general views on tariff policy. Difficulties of course arise when members of the commission are rabid partisans of a particular school of tariff doctrine or are influenced in their work, consciously or unconsciously, by definite obligations originating from the manner of their appointment.

The experiments of the past few years in the administration of the law, when analyzed by competent students, will demonstrate that the process of tariff making can be made more objective than it has been hitherto. But the full record must be available for critical study, not merely the preliminary crude data, publication of which, as previously pointed out, has resulted in considerable misunderstanding. The present policy of denying the public access to the record of an important investigation almost a year and a half after its completion is inexplicable. To clarify the situation a complete history of the sugar case should be made available by a Congressional investigating body, which alone would have full authority to question reluctant witnesses, including the Commissioners and experts of the Commission, and obtain the minutes of the Commission's proceedings in connection with this and other cases.

With the full historical record revealed by Congressional investigators, the political scientists may be left to cope with the problem of developing a form of administrative machinery which will be more effective than the present one. The problem of the political scientists is a difficult one and patience is required. It must not be

forgotten that in 1897 after the first ten years of operation, the Interstate Commerce Commission lamented: "The proceedings and the order of the Commission go for nothing."

One amendment of the existing law may be suggested by an economist without invading the field of the political scientist. The work of the tariff commissioners now consists almost entirely of the compilation, analysis, and interpretation of economic and statistical data. The ability to pass an elementary course in economics or statistics should certainly not be considered a hinderance to the effective execution of a commissioner's duties. Are the conditions of our political life such that it is visionary to expect bodies like the American Economic Association and the American Statistical Association to be granted a voice in the selection of at least some of the tariff commissioners, somewhat as the railroads and their employees participate in the selection of certain members of the Railroad Labor Board by presenting a list of nominees from which the President makes his appointments? If this is ever done, some improvement in the personnel of the commissions and the execution of the law may be anticipated.

¹*Annual Report, 1897.*

TARIFF MAKING—DISCUSSION

THOMAS WALKER PAGE.—Through a regrettable mishap I did not have an opportunity to see Professor Taussig's paper before this meeting so as to know precisely what matters would be taken up for discussion. Also, through mishap, I was late in getting here and missed hearing the first part of his paper. My remarks, therefore, may prove to be less to the point than I should otherwise make them.

I wish to say in the beginning that the provision for a so-called flexible tariff does not deserve the serious attention that this meeting seems disposed to give it. It is a temporary distortion of tariff practice and may be regarded either as a lamentable mistake or a Gargantuan practical joke according to your opinion of its original purpose.

That the provision for making the tariff flexible has been a failure is universally admitted. Men differ as to the reasons for it but the fact is undisputed. In three and one-half years only about half a dozen out of the thousands of duties in the law have been changed and none of these except the duty on wheat applied to an industry of widespread importance.

Even within this absurdly narrow range the "flexing" of the tariff has been always in one direction—and that is upward. No, not quite always. There is one item on which the Tariff Commission has solemnly reported that the existing duty was greater than the difference between the foreign and domestic costs of production and the President with like solemnity has ordered that the duty be reduced. That item is—live Bobwhite quail! It may perchance be asked why there should be any duty on live quail at all, but that is a matter that, like the peace of God, passeth all understanding. It might also be asked how any duty on wild birds like quail can be measured by the difference in the cost of producing them in this country and in Mexico. To some, indeed, costs of production may seem in this instance about as relevant to the tariff as the question whether Mexican quail can say "Bobwhite" in English or must say it only in Spanish. Whatever the answer, this duty stands as the only evidence thus far that the flexible tariff can ever "flex" downward.

It is not unnatural, therefore, that opponents of a high tariff should regard the flexible provision as a mere political trick. Nor is it unnatural on the other hand that advocates of a high tariff should regard it as a standing threat to the permanence of the existing system and should applaud the administration for making as little use of it as possible. No one really wants it, few ever did want it, and it got into the law as the result partly of a state of nerves and partly of a disagreement between the Senate and the House of Representatives as to what the proper sedative for the state of nerves should be. It is a temporary excrescence on our commercial policy and was regarded as such when it was adopted.

Consider its origin. At the time when Congress was framing the present tariff law, trade and industry had not recovered from the disturbances caused by the war. No one could foresee along what lines or at what

level business would eventually become stable. There were rumors of swift recovery in Europe and fears of disastrous competition here from foreign producers. Germany in particular was pictured as an ogre preparing to seize all markets of the world. It was believed that her industrial plant instead of being damaged by the war had actually been strengthened; it was thought that her destitute working class was prepared to accept wages that would make the cost of labor negligible; it was known that she would have to stimulate exports to the utmost in order to survive and that her money had depreciated until a dollar would buy a bucketful of it. Above all there was a hysterical dread of unscrupulous German trade practices and of German efficiency and inventiveness as shown in her chemical industry and in some others.

Uncertainty about the future rendered the drafting of an act to protect American industries much like building a stone wall in the dark. The main object of the protectionists in Congress was to build the wall high and strong enough to resist the dangers that stalked in the darkness. But the builders had not forgotten the political upheaval following the Payne-Aldrich Act and they wished to avoid rates of duty that would startle public opinion.

Accordingly the House of Representatives adopted the expedient of substituting American prices for foreign prices as the base on which duties should be levied. Since American prices were higher than foreign this would raise the base and thus permit the rates to be kept within the bounds of precedent. If a pocket knife, for example, sold in this country for a dollar and in Germany for a quarter, a duty of 50 per cent of the American price would be equal to 200 per cent of the German price.

The change of base, however, proved to be confusing and highly unpopular. The outcry against it in the press was loud and persistent. The Senate Committee on Finance determined to abolish it, but the leaders in the House refused to yield unless the Senate offered an effective substitute to meet the emergency that was thought to be imminent. After conferences between leading senators and members of the administration the Committee on Finance devised as a substitute for the House measure the plan of empowering the President, only so long as the emergency lasted, to raise or lower duties when those fixed in the law should prove to be wrongly adjusted.

Such was the origin of the flexible tariff. Now, how about its form? It is important to note two things about the Finance Committee's proposal. The first is that the new power of the President was to expire with the end of the Harding administration. The other is that nothing was said about equalizing costs of production. The Committee knew that costs could not be ascertained with sufficient accuracy to serve as a measure of duties and therefore instead of proposing to equalize costs the Committee proposed that the President should adjust duties so as to equalize the conditions of competition in trade between foreign and domestic producers selling goods in the American market.

To many in the Senate the proposed limitation on the power of the President seemed too vague to be effective and it was thought that if no other were imposed he would be able to make a new tariff at his own discretion, that in the guise of an equalizer of competition he could play havoc with the law. This caused little anxiety among protectionists so long as Mr. Harding should be President but it was gravely doubted whether the new power bestowed on him would be held constitutional by the Courts. Therefore an amendment from the floor was adopted in the Senate requiring that the President should readjust duties only so as to equalize costs of production and that he must await a report from the Tariff Commission on costs before he took action. Equalizing costs of production had long been a popular phrase, and as not many senators are trained economists or cost accountants or have given much attention to the ascertainment of costs, they took the phrase at its face value, presumed that it was practicable, and wrote it into the law. Efforts to apply it have proved what experts already knew, that such a law is absurdly impracticable.

When the bill went to conference between the two houses the time limitation on the duration of the flexible provision was cut out. Its crudely partisan nature would have created a bad impression. In this manner and in this form was the country saddled with a law which no member of Congress seems at any time to have approved. It was accepted as a substitute for a still more unpopular provision, it was intended by its sponsors to be of short duration, and it was generally expected in Congress that little use ever could or should be made of it.

Its effects have been wholly bad. It has subjected the President to the charge of tinkering, or rather of refusing to tinker, with the tariff for purely political reasons. It has bred a feeling of insecurity among industries because they do not know when the President at the instigation of the Tariff Commission may take away the protection given in the existing law. It has aroused vain hopes among the discontented that they may secure needed readjustments—hopes that are followed by cynical disbelief in the sincerity of the President and the Tariff Commission. It has proved impossible of substantial and effective administration. And it has disrupted and brought into discredit the Tariff Commission upon which lay the burden of doing the impossible.

Perhaps the last of these is the most serious of all its bad effects. We shall never have a decent tariff unless Congress is furnished with the information needed for making it and to procure that information some such agency as a tariff commission is indispensable.

Clearly the flexible provision should be repealed. Moreover, the Tariff Commission should be reconstructed and its duties and powers revised and modified. But the lines along which a reorganized Tariff Commission should function is another story and my time has expired.

(Here Mr. Page's time was extended.)

Congress cannot frame a tariff to carry out any policy, whatever that policy may be, unless it has certain information about production and trade to show what rates of duty will accomplish the purpose intended.

That information has never been fully available and therefore we have never had a tariff which worked with the adequacy and fairness demanded by the country.

It is true that before the efforts of the Tariff Commission were diverted by the flexible provision it did assemble a vast amount of relevant information. But the Commission was never permitted to say what the information really meant. Each member of Congress therefore has been free to interpret the Commission's reports in any way that he pleased. Consequently, the reports have been little more than a storehouse of miscellaneous facts from which the interested member might select only those that would best serve his purpose. Members, therefore, have continued to retain their preconceived notions and in debate have adduced such facts as they pleased from the Commission's reports to sustain them.

If the Commission is to be of real aid in making the tariff what the country wants it to be and—more important still—in helping the country to know what sort of tariff we ought to have, it must do more than throw together masses of facts. The average member of Congress is not accustomed to assimilating statistics and wading through innumerable volumes so as to form his opinions. In this particular respect he is neither more nor less than any other average citizen. Moreover, he has not sufficient time during the period devoted to tariff making to study and digest the tens of thousands of pages which are sent to him in relation to the tariff. It is just as important, therefore, to arrange information concisely and to interpret it logically as it is to amass it if the information is to be readily grasped and understood. In other words, the Tariff Commission must indicate the logical conclusions to be drawn from the facts it presents.

To do this and at the same time to maintain a balance between partisan policies is difficult but not impossible. I have elsewhere suggested that the Commission should designate as nearly as may be possible the rates of duty which would enable domestic producers operating under normal conditions and with reasonable efficiency to compete on equal terms in this country with foreign producers. Taken alone this suggestion is open to the criticism which has often been made against it; namely, that the Commission can not say what duty will equalize competition any better than it can say what duty will equalize costs of production. This, however, is not the whole of my suggestion. I proceeded to say that in connection with each rate so designated the Commission should describe the industry to which the duty applies and the trade in the products of the industry in such a way as to show what are normal conditions, what is reasonable efficiency, and what are the grounds on which a particular rate is designated. It is the second part of this suggestion rather than the first to which importance should be attached.

Having given the grounds on which it believes the rates designated would maintain reasonably efficient domestic industries against foreign competition the Commission should then proceed to show what sort of effects—whether good or bad—on industry, on trade, and on other na-

tional interests are to be expected if higher or lower rates are fixed by law. Congress will then be better able to determine whether a high duty or a low duty or no duty at all should be imposed. It is not to be expected, and it is not necessary, that members of the Commission should agree in regard to these matters. It is not the opinion of the Commission but the *grounds on which it bases opinions* which should weigh with Congress in making the tariff and should weigh with the public in trying to determine what sort of tariff we ought to have. It is in developing these grounds that the Tariff Commission will throw most light upon the question as to what sort of tariff would be most conducive to the public welfare. It goes without saying that work of this kind requires careful selection of the personnel of the Commission. It is not necessary, however, that the members should all cherish the same tariff policy nor even that they be such neutral or sterile thinkers as to have no policy of their own at all.

FRANK R. RUTTER.—On one point at least the issue is sharply drawn between Professor Taussig and Dr. Bernhardt. Professor Taussig argues that, in the very nature of things, the difference in cost of production cannot be applied impartially and objectively as a measure of import duties. Dr. Bernhardt argues inductively that it can, at least in the case of sugar—in spite of the fact that the sugar case presents, besides the ordinary problems, several difficult problems peculiar to it. Among these Dr. Bernhardt cites three: (1) The selection of the period to be covered; (2) the determination of cane or beet costs; and (3) the elimination of the effect of the tariff itself on certain elements of cost. Admitting in general the strength and soundness of his argument, I must confess that my conclusion on all three points is a little different from his. I shall merely suggest the reasons for my dissent, without attempting to argue the questions fully.

(1) The period. It is obviously more accurate to take an average for a series of years than the results for any single year, if the years selected are fairly normal and typical of present conditions. The year 1919-1920 is notoriously abnormal for sugar. Sugar prices affect costs directly, greatly, and the advance of prices after the end of government control put the Cuban costs on a much higher level than the beet costs incurred several months earlier. I prefer to exclude that abnormal year and possibly one other from the average, even at the sacrifice of the continuity of the series.

(2) Cost of cane or beets. From a legal and from an accounting point of view, Dr. Bernhardt is doubtless justified in taking the prices paid by factories for cane or beets as the cost of purchased cane or beets entering into the cost of production of sugar. I question the strict correctness of this procedure from an economic standpoint. Dr. Bernhardt admits that the "price paid" method includes a farming profit. Of course payments for coal and for all other supplies include a profit, too, that no one would try to exclude from sugar costs; but there is this difference. The sugar duty is intended to protect the cane or beet grower as well as the sugar factory. Economically, although not legally, the two interests in-

terlock and in determining cost the profit of both interests should theoretically be excluded. In practice, however, there is little error in Dr. Bernhardt's method. If farming profits are included on both sides, in foreign as well as in domestic costs, the difference in costs is little affected—that is, over a series of years.

(3) Elimination of the tariff. Can the effect of the tariff be eliminated from costs? There is no question of the desirability of such a refinement, but there is grave doubt whether it can be carried out. The tariff directly affects the price of sugar and that in turn determines, or at least influences, the price paid for cane or beets or the wages paid in some producing regions. Dr. Bernhardt deserves praise for trying to take out this direct effect of the tariff, but it is hard to believe that he has succeeded in taking the tariff completely out of costs.

Then there are two other perplexing questions that Dr. Bernhardt does not consider in his paper: (1) The choice between average and bulk-line costs, referred to by Professor Taussig, and (2) the treatment of the different sugar regions. Dr. Bernhardt has probably omitted these topics intentionally—the first because it has no peculiar bearing on sugar and the second because of the legal considerations involved.

What is "the United States," for which the cost of production is to be compared with that in "the principal competing country"? This question affects vitally the tariff on sugar. The domestic sugar industry is multiple. Costs of Louisiana cane sugar and domestic beet sugar differ widely from the cost of tropical sugar produced in Porto Rico, Hawaii, and the Philippine Islands. Unfavorable climate in Louisiana and unfavorable labor conditions in the beet regions enhance sugar costs in continental United States. The sugar industry in our insular possessions has its drawbacks, too, but they are much less serious. Should the tariff be determined by the cost in the least favored branch of the sugar industry? If so, the more favored regions would profit unduly. Or should the tariff be based on the difference between the average cost of all "United States" sugar—that is, exclusive of the Philippine output—and the cost of Cuban sugar? If so, some of the domestic product may be made unprofitable and some of the insular product yield more profit than is needed to maintain the industry. If the tariff is to measure differences in cost of production in and out of the United States, how can it ignore the striking differences in cost between the different sugar producing regions within the United States, continental and insular? As a matter of strict justice, should not a production tax be imposed on the more favored regions equal to their advantage over the tariff-determining norm? The same equalizing effect would be obtained under free sugar, with a bounty graduated according to the varying costs. Neither production tax nor bounty comes within the discretion of the Tariff Commission, but the selection of one region or the averaging of several regions is prerequisite to finding the "differences in costs."

I take it that no economist today believes that the difference in cost of production is the one rule of faith and practice in tariff making or tariff

mending. Yet it may well be argued that any rule is better than no rule, for it compels—and enables—advocates of change to prove their case. The rule may do little good generally, but it offers a possible remedy for flagrant cases of unfair rates. The rule cannot, I think, be applied so easily and so definitely as might be inferred from Dr. Bernhardt's paper. At the same time, I must point out that the modifications that I have suggested, if adopted, would not cause any great change in the *differences* in costs from those obtained by Dr. Bernhardt's method. That is my reply to Professor Taussig's negations. There cannot be full unanimity on the part of investigators, but the diversity of opinion is mainly in matters of detail. Real progress has been made in methods of investigation and, difficult as the problems are, a fair workable solution can ordinarily be found—when impartially sought.

Professor Taussig has referred to the Tariff Commission as originally "nonpartisan." It is by law, and has been from the first, bipartisan or tripartisan or poly-partisan. You cannot expect absolute freedom from bias as long as the law requires that each commissioner be, or be not, a Republican or a Democrat or a Progressive. And you cannot get from a commission the same degree of efficiency, consistency, and speed as from a body under unified control.

FRANK D. GRAHAM.—Mr. Bernhardt though apparently asserting, in direct opposition to Professor Taussig, that the flexible provisions of the Tariff Act of 1922 are practicable, really does not join issue on the essential point. Professor Taussig is right in maintaining that the Tariff Commission cannot apply those provisions of the Act without, perhaps unconsciously, taking a stand on the question of high or low duties. This inevitably throws the Commission into politics and ruins its usefulness. But its difficulties are largely due to the failure of Congress to define the policy which Congress desires to realize. If legislation were passed clearly stating that policy, whether it be to exclude all imports of certain commodities or to allow sufficient imports to eliminate high cost home producers or to impose a check upon existing or potential domestic monopoly or to preserve the *status quo* in the relation between imports and domestic production, the Tariff Commission could make recommendations without thereby taking any attitude on the question of high or low duties, and might perform a useful administrative function which in its present inevitable state of confused purpose is impossible.

EDWARD P. COSTIGAN.—The United States Tariff Commission, created by the Revenue Act of September 8, 1916, was organized on March 21, 1917, with Dr. Taussig as its first chairman. Beginning my official service concurrently with Dr. Taussig, it happens that I am the only person who has been continuously a member of that governmental body during the entire period of its activities. It is, therefore, of no ordinary moment that I find myself in attendance at a meeting at which the Tariff Commission, its place and value, are running the gauntlet of critical dis-

cussion by leaders of economic thought in America. This is, however, as it should be, since free government and its important experiments cannot be usefully promoted, unless aided by searching and intelligent publicity.

It is unfortunately impossible for me in the brief period at my command to do more than make one or two passing references to Dr. Taussig's thoughtful paper. So far as I am advised, never before tonight has Dr. Taussig made so clear or unanswerable a statement of the reasons for maintaining an independent, nonpartisan, essentially judicial Tariff Commission. In this declaration he is in accord with the foremost leaders of American public sentiment in business, statesmanship, and education of the last quarter of a century. Indeed, the Tariff Commission was created in response to the almost unanimous demand of such leaders for a disinterested governmental tariff agency.

Lest we forget the forces behind that movement, it should be recalled that, in their respective national platforms, the Republican party in 1912 favored an expert Tariff Commission, citing the value of the reports of the Tariff Board of 1911; and both the Progressive Party in 1912 and the Democratic party in 1916 emphatically endorsed a nonpartisan Tariff Commission. Of comparable significance was a referendum vote taken by the United States Chamber of Commerce in the spring of 1913 on the question of the desirability of creating a permanent tariff commission. As a result of that referendum, 715 votes were cast in favor and but 9 against such a body, the reasons for establishing such a commission being stated by the Chamber of Commerce in a communication to its members as follows:

"The determination of tariff policy is a political question . . . What the rates of duty on specific articles should be in order to accomplish the policy established is an involved, technical, and economic question . . .

"Congress does not sit continuously . . . Hurried Committee hearings, immediately prior to the formulation of a tariff bill, to carry out a predetermined party policy, at which interested parties appear and submit their own statistics, are in no sense a satisfactory substitute for impartial, continuous investigation of conditions here and abroad.

"Impartial determination of facts being a *sine qua non* to intelligent and scientific framing of tariff schedules in order to carry out a tariff policy, the question is one only of the agency to secure these facts and present them in disinterested reports. Congress . . . cannot in the nature of things provide this agency from within itself. The Departments . . . cannot concentrate attention on one subject. Direction and authority should not be confined to one man when the object is to secure disinterested investigation and report on matters to be made the subject of party policy and legislation. The best agency that experience has yet devised for these purposes is a commission permitting of deliberation between persons of high standing and representing different views of party policy."

For the creation of such a tariff commission, the year 1916 was more propitious than any in a generation, not only because the war in Europe

was pressing new problems of economic reconstruction into the foreground, but also because the dividing line between the standards of the two major political parties of the United States was less distinguishable than at any time in our history. The Republican party for many years had repeatedly declared in favor of a tariff measuring the difference between the costs of production of articles at home and abroad; and in 1913 the Democratic party had given a new interpretation to the phrase "a tariff for revenue only" by construing it to mean a "competitive tariff" that is, one which would produce the largest revenue by permitting the genuine competition of domestic and imported articles in the American market. The difference between the two tariff standards—Republican and Democratic—as thus declared, is somewhat obscure and the application of either clearly requires scientific and disinterested investigation of the underlying facts if the public is to have confidence in the resulting tariff rates.

While all that has been said supports this particular conclusion of Dr. Taussig, it must, however, be noted that his confidence in a nonpartisan commission depends largely upon the responsibilities assigned to such a commission. He apparently believes that the reports of such a commission will be dependable so long as it is limited to findings of fact without recommendations of changes in rates of duty. And he is inclined to ascribe the difficulties of the Tariff Commission to the circumstance that in 1922 the previous law was amended so as to permit the Tariff Commission to make rate-changing suggestions to the President. Apparently it is Dr. Taussig's opinion that this amendment, because of the large financial interests affected, was certain to bring the Tariff Commission into politics.

May it not be answered that this position is unduly pessimistic? If Dr. Taussig's generalization is sound, we may reasonably assume the impossibility of procuring unbiased judgments from the courts of this country, not to mention international tribunals, since more and more enormous financial results depend upon such judgments. At any rate, no doubt the great majority of Americans still believe that it is practicable to secure members of a tariff commission with whatever powers invested, who will perform their official duties under their oaths of office with common sense, disinterestedness, and efficiency.

With due respect to Dr. Taussig, such a Commission, even though invested with the authority reposed in it under the flexible provisions of the Tariff Act of 1922, should aid in taking the tariff out of politics and politics out of the tariff. It could give the benefit of doubt, unless the law provided otherwise, to the nation, and the consumers of the nation, before the country's taxing power was loaned to any producer or group of producers. Local and selfish interests could be supported or disregarded, as the national welfare appeared to require, in accordance with standards clearly specified by Congress. In a word, the country's tariff policy could be exercised judicially under settled law, and not according to arbitrary whims or preferences. Stated otherwise, it would be possible in tariff

administration, in the fine language of the Massachusetts Constitution, to have a "government of laws and not of men."

It was with firm faith that such a disinterested agency of the government is practicable that the Tariff Commission was created. To safeguard its findings of fact the Act of 1916, which created the Commission, contained provisions which were intended to perpetuate it and to assure its independence and judicial character. Long terms of office were provided for its members, running through three presidential administrations. It was expected that these conditions would free the Commission from presidential control. Furthermore the Commission was to be divided in membership in such a way as to emancipate it from internal partisan domination, the law providing that not more than half of its six members should be adherents of the same political party. It will be noted that this provision of the law did not guarantee unanimous reports but did tend to assure reports presenting different economic interpretations.

Members of the Commission were to devote their whole time to its investigations and reports. By these means it was hoped to arrive at the accumulation of unbiased information which would point to nonpartisan tariff and commercial policies, or at least to create an expert tariff body which could be equally serviceable to any president or any Congress however constituted politically.

May I say further that my experience does not confirm a substantial part of the indictment brought by Dr. Taussig against the usefulness of cost of production investigations? It, of course, might well be asked that the law be made more definite by Congress in important particulars, for example, that the flexible tariff section provide that, except in emergencies, the normal ascertainable competitive differences here and abroad be steadily kept in view. It might also be urged that the production-cost rule be limited so as not to apply to the whole list of rates fixed in Title I of the tariff law; and that the maximum possible increase in rates of duty, particularly where American selling price is invoked, be uniformly restricted after careful re-examination by Congress.

On the other hand, I am persuaded that, as Congress doubtless intended, the consistent construction of the present law with the aid of reason and common sense by a disinterested commission would eliminate the more conspicuous difficulties which have arisen in the application of the statute. Moreover, there are indications that if the Commission's reports could be promptly published and given to the public, investigations under the cost of production rule (including as the present law does all statistically ascertainable advantages and disadvantages in competition), would be found to be far more educational and useful for tariff-making and tariff changing purposes than any other method of determining tariff rates heretofore used in this country.

Doubtless the most informative contribution I may make on this occasion is to state certain conclusions about the Tariff Commission to which I have been driven by my long experience as a member. Unfortunately, because of the brief time available, I cannot do more than present these

conclusions without supporting reasons, though I must ask you to believe that such conclusions, in my judgment, are sustained by the facts. The conclusions are:

1. Within the last year the United States Tariff Commission, taken as a whole, has ceased to represent disinterested and nonpartisan independence.

2. A serious obstacle to the consideration and correction of the Commission's problems is due to the fact that the public has been denied access to a number of the Commission's most important reports and findings; and that it has therefore not been possible for the public to be properly informed about the Commission's work.

3. A Congressional investigation of the activities of the Tariff Commission under the flexible provisions would appear to be an indispensable forerunner of any legislative correction of the present little-understood and regrettable situation.

4. Pending such an investigation, confirmation by the Senate of the United States of new appointees to the Tariff Commission—including Commissioners Brossard and Baldwin—should be postponed.

5. Until adequate assurances are given that the membership of the Tariff Commission will be safeguarded by law and will conform to the standards of disinterested public service, it is fair to ask that no further appropriation for the Commission's work be authorized by Congress.

THE TRADE ASSOCIATION MOVEMENT

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I

The idea of association, as an element in fashioning the organization and conduct of economic life, finds widespread expression in modern industrial society. Despite the persistence of the conception that the prevailing order is and ought to remain one essentially dominated by private enterprise and individual initiative, numerous forces are operative through which economic undertakings are deliberately molded for the achievement of social ends. Nor are these forces revealed only in governmental action—in associated effort of the community at large through political organization. For about half a century, it is true, the legal environment of private enterprise has been growing in extent and complexity; the method of public control has come to be regarded as the chief means of eradicating abuses and directing economic processes into salutary and constructive channels. At the same time, however, similar ends have been constantly promoted through voluntary action. While such voluntary action is grounded in self-interest, and its immediate goal is the advancement of the fortunes of the participants, the results in many instances are at least no less fruitful, and frequently much more realistic, than those of government regulation.

It is a commonplace that so-called unconscious co-operation is of the very essence of the prevailing economic order. The separation of employments, the technical division of labor, the localization of industry, the mechanism of exchange and price—all these characteristics of the industrial structure tend to render the fact of co-operation, though unconscious and automatic, both basic and pervasive in economic adjustments. Nor is conscious co-operation in the establishment of business units and in the interrelationships between business competitors unusual or abnormal. The corporate organization of industry is generally recognized as the most effective means for the association of capital and capacity; and combinations among laborers have been widely accepted as a necessary means of removing glaring inequalities in bargaining power between employers and employees. The benefits of association have likewise been recognized in agriculture, in finance, and in the professions, and have led to the organization of manufacturers' associations, chambers of commerce, and similar bodies which seek to improve the general environment of their respective activities. The pressure of industrial and commercial development has demonstrated that self-contained isolation, on a purely individual-

istic basis, is not essential to the maintenance of the competitive process, and that it cannot be artificially imposed by the application of legal doctrines of technical conspiracy; that conscious and deliberate co-operation, even among competitors, when not unduly restrictive in character, tends not only to inure to the private advantage of the associates, but to promote a more efficient and more orderly industrial structure.

The trade association movement is but a further index of this widespread resort to some measure of co-operative control of industry. Trade associations are combinations of producers or sellers. Because of the rapidity of their growth in recent years, they have generally been characterized as the latest manifestation of the combination movement. Industrial combinations have assumed many forms. The loose federations of competitors—through price agreements and pooling arrangements of various types—have given way, successively, to technical trusts, to holding companies, and to unified corporations involving actual merger of the combining enterprises. The trade association movement marks a reversion to the looser forms of combination. Trade associations are not engaged in business for profit, nor are they consolidations of the associated units. The identity of the constituents is absolutely maintained, and their independence is limited only to the extent of their common undertakings.

But trade associations may be distinguished even from the looser forms of combination in at least two significant respects. In the first place, they are normally established as permanent institutions, with a formal organization, and functioning openly. They are designed to utilize the combined experience of the trade in molding continuously the conduct of that trade in various directions, rather than to effectuate, often secretly, a specific, or at any rate temporary, undertaking in market control, as was so frequently the case with the early pools and price agreements. In the second place, the range of trade association activities far transcends those generally associated with market control and restraint of trade. While some of the activities of trade associations have been directed toward restrictive ends—concert of action being utilized, for example, to curtail output and to manipulate price—these restrictive undertakings generally constitute but a single phase of trade association activity, and usually a subversion of the normal trade association functions. They reflect the abuses to which trade associations, like all forms of combination, are subject, rather than disclose the characteristic significance of the trade association movement.

The distinguishing earmark of the trade association movement is that it seeks, through voluntary co-operation, so to organize the con-

duct of trade and industry, within the competitive system and on the basis of maintaining the essential independence of the associates, as to render business enterprise more efficient and more orderly. Trade associations aim not only to eliminate the wastes and mitigate the fluctuations of unco-ordinated and unintelligent competition, but to develop standards and practices which reflect the best thought and soundest experience of the trade or industry over which each association exercises its influence. Their basic purpose is to fashion the environment within which competitive forces operate rather than to suppress competitive conditions.

The activities through which these ends are sought to be achieved are many in number and diverse in character. They are related, directly or indirectly, to numerous aspects of both productive and distributive processes, and they vary from association to association. All of the well-known trade association activities are found in no single association, and no one of them is universally undertaken by all associations. The extent and character of the work of any particular association depend upon various influences: the peculiar problems of the organized trade; the age and experience and jurisdictional sweep of the association; the liberality with which the associates support their co-operative effort; the capacity and imagination of the executives charged with the administration of the association. Because of similar circumstances, the effectiveness of any particular activity likewise varies with each association. Since the purpose of this paper is merely to indicate the general significance of the trade association movement and its relationship to public policy, no attempt will be made to set forth the concrete facts concerning individual trade associations. It will be sufficient to note very briefly the nature of some of the more important association activities.

II

The great bulk of trade association undertakings, as has already been suggested, is calculated, in one way or another, to promote economy and stability in manufacturing and marketing processes—to reduce costs, both on the technical and commercial side, to stimulate demand for the output of the particular trade, to minimize the hazards of unforeseen contingencies, to mitigate the conditions of conflict between employers and employees, to lessen the amount of costly and irritating litigation among buyers and sellers, to eliminate what are generally deemed to be unfair business practices, to safeguard the trade against unduly onerous burdens imposed by public authority, to spread such trade information as may provide the knowledge essential for intelligent business conduct.

A number of activities find their chief support in a desire to reduce costs, individual and social. There has been a growing emphasis upon the value of research undertakings. In many instances laboratories have been set up and investigations entered upon directly by associations; in numerous other cases the associations have lent their co-operation and support to research projects immediately administered by government departments or by educational institutions. This co-operative research has not only made available to many of the business units, particularly those of smaller size, results of scientific investigation that they could not attain independently, but it has frequently led to the elimination of flagrant wastes in the trade or industry as a whole, through simplification of products and standardization of processes. The pooling of patent rights, when unaccompanied by unduly restrictive stipulations, has resulted in a wider and more effective utilization of technical advances—simplifying relationships between numerous owners of related patents, and conducting ultimately to the advantage of the consumer in lower costs. The recognition by trade associations of the importance of cost accounting, both as an aid to manufacturing efficiency and as a necessary tool for intelligent price policy, and the efforts put forth by them in providing instruction in cost keeping and in establishing uniform accounting systems, have helped develop an increasingly sound basis for the organization of production and the formulation of marketing programs. Considerable economies are likewise realized through the operation of credit bureaus and traffic bureaus. The credit bureaus aim to make available to the trade full and continuous information concerning the credit status of buyers. They supplement the credit departments of the individual associates and the general credit services rendered by outside agencies. The traffic bureaus are also very largely informational in character. They undertake, principally, to provide for the associates, currently and in convenient form, the data as to rates, service, and transportation conditions essential to effective industrial traffic management, although they occasionally perform actual services connected with transportation for their members, and they sometimes represent the trade in public proceedings involving alleged maladjustments in rates and practices.

There are numerous other trade association activities designed to advance the organization of industry in a constructive direction, although they do not bear so immediately upon questions of cost. Joint advertising campaigns seek to stimulate demand for the product of the group, in competition with alternative products, by combating unfounded prejudices, by directing attention to new uses, by extending publicity to large market areas for the output of small and scat-

tered producers. Such publicity is relatively free of the notorious wastes of the usual competitive advertising; it aims to promote the common interests of common groups. The insurance departments of trade associations are partly educational in character, striving to spread a better understanding of the necessity and methods of protection against the unpredictable hazards of the particular trade, and partly instruments for reducing the cost of such protection. Trade associations have also served as convenient agencies for bettering employment relations. They provide a meeting ground for the voluntary elimination by the trade of the subnormal employment standards, especially as to hours, that frequently persist because of the competitive pressure of unenlightened producers, and for the development of various policies, along educational lines, in the prevention of accidents, and in the improvement of working conditions, which tend to lessen the frequency and bitterness of conflicts between employers and employees. The burdens of excessive litigation between buyers and sellers are sought to be lightened through the promotion of commercial arbitration. While this extra-legal process of composing differences, through a personnel associated with the trade and of the contestants' own choosing, is generally voluntary, it often operates to effect speedier, less costly, more amicable, and even more just settlements than are possible through the unwieldy and unspecialized machinery of the regularly constituted judicial tribunals. Many of these activities involve the establishment of business standards and commercial practices on the basis of the experience of the trade. These standards and practices are often supplemented by the adoption of so-called codes of ethics. While these codes seldom go beyond the formulation of platitudinous canons of fair dealing, they tend to arouse the organized opinion of the trade against manifestly fraudulent or unconscionable business methods. For this purpose the pressure of trade opinion often proves more effective in raising the plane of competitive conduct than the "cease and desist" orders of the Federal Trade Commission; and the organized trade also provides the most natural channel through which the possibilities of the Commission's "trade practice submittals" may be realized. This representative function of trade associations manifests itself, similarly, in their presentation of the views of the trade, frequently with very helpful supporting data, before other governmental bodies charged with formulating public policies of significant concern to business interests. Such responsible representation, in the open, of the interests of distinct groups, whether it be in matters of finance, taxation, the tariff, labor, or transportation is clearly essential to the effective

and equitable exercise of legislative and administrative authority in a complex industrial society.

But perhaps the most characteristic activity of trade associations, and the one which has given rise to most controversy and discussion, is that concerned with the compilation and distribution of trade information. This trade information is largely of a statistical character. It aims to provide for the associates, as promptly and as fully as possible, the significant facts relating to market conditions in the particular trade or industry. The facts thus gathered and disseminated generally cover production, sales, shipments, stocks on hand, costs, and prices in closed transactions. While the associates undertake to furnish the necessary information for rendering these data available, they retain their freedom of action in formulating production and price policies on the basis of the economic conditions disclosed by these data. The purpose of these statistical activities is to provide the necessary knowledge for intelligent pursuit of competitive advantage. It is believed that the spread of such information is calculated to avert misdirected productive effort, without obstructing the free operation of competitive forces. Indeed, the substitution of accurate knowledge for blind guesswork in the conduct of business constitutes an indispensable condition for true competitive rivalry, because only on the basis of knowledge can competitors pursue such policies as the state of the market inherently warrants. It is conceded that competition, so conducted, will tend to produce greater uniformity in prices, as between different sellers, and a larger degree of stabilization of the price level, over a period of time. These results, however, when they spring from economic facts and not from agreement, are clearly advantageous, not only to the associates, but to the community at large. In disseminating such information among their members, trade associations are but rendering, in special cases, a service which is performed in many fields by government departments and by independent statistical agencies. This service is especially helpful in industries having a large number of small and scattered producers. Moreover, in order that the information thus gathered may be made available to buyers and the general public as well as to sellers, the data are generally published in the newspapers and in trade journals and reported to appropriate government departments. When pursued along these general lines, there can be little question that the statistical activities of trade associations tend to rationalize the organization of production and the conduct of business.

III

In the foregoing survey of the more important trade association activities, an attempt has been made to direct attention to the constructive features of trade organization. But co-operation among competitors may be used to suppress competition and restrain trade. In so far as the activities of trade associations have been calculated, in purpose or effect, to attain such restrictive ends, they have come into conflict with the inhibitions of the anti-trust laws.

One of the principles which has received repeated recognition in the judicial interpretation of the Sherman Act is that the form or method through which restraint is accomplished cannot validate an otherwise illegal agreement or combination. In the words of the late Chief Justice White, "the generic designation of the first and second sections of the law, when taken together, embrace every conceivable act which could possibly come within the spirit or purpose of the prohibitions of the law, without regard to the garb in which such acts were clothed."¹ However beneficent, therefore, the general purposes of trade associations, and however salutary their general effects, the illegitimate practices of particular associations are just as subject to legal condemnation as are the numerous other restrictive contracts and combinations that have failed to receive the sanction of law.

On the other hand, the meaning of restraint of trade has been markedly liberalized through judicial interpretation. Combinations of competitors are not necessarily unlawful. Hence the mere organization of trade associations, however all-inclusive their membership, constitutes no violation of the anti-trust statutes. Not every restriction of competition is deemed to amount to restraint of trade. The necessary purpose and probable consequences of a particular agreement or understanding, as evidenced by all the circumstances and conditions surrounding the arrangement and by the character of the practices utilized to execute its terms, are considered much more relevant and given much greater weight than the mere fact of associated action. It is recognized, in other words, that restrictions upon competitive conduct, when they do not arbitrarily narrow the field nor destroy the essential independence of business rivals, may constitute a mere regulation of competition, tending thereby to promote trade rather than to obstruct its natural development. This, it is believed, is the general purport of the so-called "rule of reason" as applied to restraint of trade and monopoly.² Perhaps the most succinct and enlightening statement of this rule, applicable to the

¹*U. S. v. American Tobacco Co.*, 221 U. S. 106, 187 (1911).

²*Standard Oil Company v. U. S.*, 221 U. S. 1 (1911); *U. S. v. American Tobacco Co.*, 221 U. S. 106 (1911).

type of loose combinations represented by trade associations, is to be found in the opinion of Justice Brandeis in the Chicago Board of Trade case: "Every agreement concerning trade, every regulation of trade, restrains. To bind, to restrain, is of their very essence. The true test of legality is whether the restraint imposed is such as merely regulates and perhaps thereby promotes competition or whether it is such as may suppress or even destroy competition. To determine that question the court must ordinarily consider the facts peculiar to the business to which the restraint is applied; the condition before and after the restraint was imposed; the nature of the restraint and its effect, actual and probable. The history of the restraint, the evil believed to exist, the reason for adopting that particular remedy, the purpose or end sought to be attained are all relevant facts."

On the basis of these general rules of interpretation, the trade association activities previously characterized have been relatively free from attack under the anti-trust laws. On the whole both the Department of Justice and the courts have recognized that these activities, when normally pursued, aim to promote the effective operation of competitive forces rather than to suppress them. But attempts at joint price-fixing, and concerted interference with the freedom of producers or sellers to trade in a given market, have uniformly encountered the condemnation of the courts. Such conduct, regardless of its extent or its actual outcome, is deemed necessarily to constitute unreasonable restraint of trade. Numerous instances might be cited of such illegitimate practices. A single illustration of each of the two types alluded to will suffice for our present purposes.

In the so-called Bathtub Case,² for example, a patent pool was utilized as a means of concerted price-fixing in the enameled iron ware industry. Sixteen companies, producing about 80 per cent of such ware in the United States, transferred their patents, many of them competitive, to the secretary of the association, under an agreement whereby the association secretary licensed the several manufacturers to produce enameled ware under these patents, provided they would maintain schedules of prices for this ware determined by a committee of their number. The Supreme Court found in this arrangement a clear price-fixing conspiracy. Not even the legal monopoly of each individual patentee was permitted to serve as a basis for the joint manipulation of the prices of the unpatented articles produced by the patented processes.

The case of the Eastern States Retail Lumber Dealers' Association³

¹*Chicago Board of Trade v. U. S.* 246 U. S., 231, 238 (1918).

²*Standard Sanitary Manufacturing Co. v. U. S.*, 226 U. S. 20 (1912).

³*Eastern States Retail Lumber Dealers' Association v. U. S.*, 234 U. S. 600 (1914).

illustrates the legal status of the trade boycott. In this case the members of the association entered into an agreement whereby they were to report the names of wholesale lumber dealers who sold directly to consumers, and the names of these offending wholesalers were placed upon a blacklist which was circulated among the associates. Only upon the assurance of such an offending wholesaler that he would no longer pursue the policy of direct selling, in competition with the retailers, would he be restored to good standing, by the removal of his name from the blacklist. This plan of action was found by the Supreme Court to constitute an unreasonable restraint of trade. The court condemned this activity of the retailers' trade association, despite the absence of an express boycotting agreement, because it found that the necessary tendency of the circulation of these lists would be to cause retailers receiving them to withdraw or withhold their business from the reported wholesalers, thus restraining wholesalers from participation in retail trade, and because the record disclosed numerous instances in which the trade of the offending and reported wholesalers was actually impaired to an appreciable extent. The allegation of praiseworthy intent—the desire to maintain existing channels of trade as a means of safeguarding the socially necessary facilities of retail dealers—was held by the court to have little weight as against the declared policy of Congress to maintain the freedom of interstate commerce. "Private choice of means," said the court, "must yield to the national authority thus exerted."

IV

Adjudications of the foregoing and related types of cases have been numerous, and have extended over a considerable period of years. While sharp differences of opinion have arisen as to the wisdom of the policy of the law in some of these controversies—the varying views in the trade boycott cases, for example, depending upon whether the maintenance of the *status quo* or the encouragement of experimentation is regarded as the dominant good—no alarm was felt or expressed that the attitude of the law was hostile to the essential character of the trade association movement. More recently, however, such alarm has been voiced repeatedly. It drew its impetus from the condemnation by the Supreme Court of certain plans for the interchange of trade information. The *Hardwood*¹ and *Linseed*² cases, decided respectively in 1921 and 1923, were the storm-centers of controversy. In many quarters these decisions were construed to invalidate the statistical activities of trade associations and thus to render these associations incapable of performing their most useful and most char-

¹*American Column & Lumber Co. v. U. S.*, 257 U. S. 377 (1921).

²*U. S. v. American Linseed Oil Co.*, 262 U. S. 371 (1923).

acteristic function. Then, on June 1, 1925, the *Maple Flooring*¹ and *Cement*² cases were decided. In these cases the interchange of trade information disclosed in the record was upheld by the Supreme Court. In many quarters these decisions are being construed as a reversal of the earlier opinions, and the conclusion is being drawn therefrom that not only are the genuine informational activities of trade associations clearly within the law, but that even such concert of action as was found in the earlier cases, and condemned therein as unreasonable restraint of trade, may now be lawfully pursued. And plans appear to be going forward in very influential business circles to resume methods of conference and co-operation, in the name of mere interchange of fact and opinion, which have been long recognized as an illegitimate exercise of associative power. In the judgment of the present writer the extreme fears as to the significance of the *Hardwood* and *Linseed* cases and the extreme hopes as to the significance of the *Maple Flooring* and *Cement* cases are equally unjustified. Even a very brief analysis of the decisions should throw some light upon these issues.

In the *Hardwood* case the information collected and distributed through the *Hardwood Lumber Manufacturers' Association* required daily sales reports, daily shipping reports, monthly production reports, monthly reports of stocks on hand, and current price lists kept up to date as new quotations were made. These data were not in the form of aggregates or averages, but minutely detailed and identified as to each member. The daily sales reports, for example, were exact copies of the orders taken, specifying all the terms and conditions of each sale, and including the names and addresses of the buyers. Similarly, the daily shipping reports covered all the details of each shipment and included exact copies of the invoices. All of the reports furnished by the members were subject to audit by representatives of the association. The information thus collected was distributed by the manager of statistics, and his comments by way of interpretation, both in special market letters and in connection with the data regularly sent to members, frequently suggested restriction of output and maintenance or increase of prices. In addition numerous meetings were held, at which the regularly reported data, as well as information secured through questionnaires, were discussed; in many instances the discussions touched upon future policy, with a view to curtailment of output. The court found in the whole complex of circumstances disclosed by the record a clear purpose to restrain trade, through concert of action, and that excessive increases in price had actually fol-

¹*Maple Flooring Manufacturers' Association v. U. S.*, United States Supreme Court, *Advance Opinions*, 1924-1925, No. 17, July 1, 1925, pp. 662-672.

²*Cement Manufacturers' Protective Association v. U. S.*, *Ibid.*, pp. 672-679.

lowed toward which the "united action of this large and influential membership of dealers contributed greatly."

In the Linseed case a subscription agreement was entered into between the Linseed Crushers Council and the Armstrong Bureau of Related Industries, whereby this Bureau would serve as a clearing-house of information concerning the business operations of the associates. The subscribers undertook to transmit all published price lists promptly to the Bureau, to report by telegraph all quotations offering better terms to any buyer than those published, to furnish the names and addresses of prospective buyers to whom such special quotations were made, and to report all orders received on the basis of these quotations. These reports were required to disclose not only exact prices and quotations, but also all terms and discounts, the quantities sold, and whether the sales were made to jobbers, dealers, or consumers. In the words of the court: "Each subscriber agreed to furnish a schedule of prices and terms and adhere thereto—unless more onerous ones were obtained—until prepared to give immediate notice of departure therefrom for relay by the Bureau." It was also provided, for example, that in case a subscriber made an unsuccessful offer to a prospective buyer, such subscriber might require the Bureau to "bulletin" all the other subscribers for specific information as to any quotations they may make to this prospective buyer, and the results of such inquiry were to be compiled and distributed among the associates. Any failure to submit complete and accurate reports of all sales, quotations, and offerings and full and correct answers to all inquiries reasonably made by the Bureau subjected the subscribers to heavy forfeitures; and the Bureau's auditor was authorized to examine all books, memoranda, and correspondence of the subscribers. The numerous provisions of the arrangement were carried out vigorously. Even the most insignificant departures from the agreement were diligently investigated by the Bureau and the subscribers promptly apprised of the results; and at the monthly meetings, absence from which was subject to fine, "members were 'put on the carpet' and subjected to searching inquiry concerning their transactions." All of the information divulged in the reports and communications, as well as at the meetings, was treated as confidential. The court held this so-called "open competition" plan a violation of the Sherman Act. It found that the natural and necessary tendency of the agreement, as executed by the defendant companies, was to suppress competition in interstate commerce.

It was these two decisions that led to the fear that interchange of information among competitors was per se unlawful. This fear was intensified by the construction placed upon these decisions by the then

Attorney General of the United States. In an interchange of correspondence with the Secretary of Commerce he suggested that even general information as to the conditions of an industry ought not to be distributed through trade associations, but "strictly through a responsible medium," like the Department of Commerce. On the basis of these views consent decrees were exacted from various associations whereby they were enjoined from receiving and compiling information and statistics concerning production, shipments, stocks on hand, and prices except for transmission to a governmental agency, upon its request, and not for distribution among their members.¹ There was vigorous protest against this attitude of the Department of Justice, because there seemed to be little in the Hardwood and Linseed cases to justify so sweeping a conclusion. The interchange of information in these cases was not only more intimate than is necessary for straight² forward competition, but the peculiar circumstances surrounding the arrangements, as previously described, gave ample basis for the finding of a common understanding among the associates calculated to restrain competition unduly. At most it may be said that the court condemned so-called "open-price policy," as revealed in these particular plans of operation; there is nothing to justify the conclusion that the interchange of information as such was held to be illegal. It is true that the decrees appear to be directed against the collection and distribution of data on production, sales, stocks, and prices, and their discussion at meetings of the associates. But since the interchange of information and opinion was the mechanism through which the restraints were primarily accomplished, it was necessarily comprehended within the decrees. The legal significance of the decisions must be measured by the character of the bills of complaint, as illuminated by the record, rather than by primary reference to the decrees. The Supreme Court set up no new standard of restraint, as an operative fact, in addition to the contracts and combinations prohibited by section one of the Sherman Act. Throughout the decisions the chief emphasis is upon concert of action and harmony of policy. The scheme of reports and discussion, in the particular forms disclosed, was evidence of the common purpose that animated the associates. It is no new legal doctrine that such common purpose may be gathered from a complex course of conduct; and an illegal object does not become valid because attained through tacit understanding rather than through express agreement. But all doubt as to the limits of the Hardwood and Linseed cases appears to have been removed by the decisions in the Maple Flooring and Cement cases.

¹See *U. S. v. Tile Manufacturers' Credit Association*, U. S. District Court, S. D. Ohio, In Equity, No. 201, Nov. 26, 1923.

The activities of the Maple Flooring Manufacturers' Association against which the government complained were as follows: (1) the computation and distribution of the average cost to the members of all grades and dimensions of flooring; (2) the compilation and distribution of a booklet showing freight rates on flooring from Cadillac, Michigan, to over five thousand points of shipment, (3) the collection of complete information as to quantity and kind of flooring sold, prices received, and stocks on hand, and the distribution of this information in summary form without identifying the reporting members with regard to specific data; (4) the discussion of the problems of the industry at meetings of the association. Since there was no evidence of actual intent to restrain competition, and since the prices charged by the associates were generally lower than those charged by non-members, the sole issue was whether these activities, regardless of their avowed purpose or actual effect, were necessarily in restraint of trade. The court found: that the average costs were fairly computed from the actual experience of the members; that the information as to freight rates, in view of the location of the principal producing points in Michigan and Wisconsin, was a great convenience to the trade; that the trade statistics were entirely confined to closed transactions, did not identify the reporting mills nor include names of purchasers, and were given wide publicity; and that the discussion at the meetings dealt with the general conditions of the trade, as disclosed in the statistical reports, but without any agreement or understanding with respect to future policy. On the basis of these findings, and recognizing that "the public interest is served by the gathering and dissemination, in the widest possible manner, of information with respect to the production and distribution, cost and prices in actual sales, of market commodities, because the making available of such information tends to stabilize trade and industry, to produce fairer price levels, and to avoid the waste which inevitably attends the unintelligent conduct of economic enterprise," the court held that there was no necessary tendency in these activities to lead to concert of action and restraint of trade.

In the Cement case the government charged that the Cement Manufacturers' Protective Association was instrumental in controlling prices and production by means of the following activities: (1) by the use of "specific-job contracts" for future delivery of cement, enforced by a system of reports and espionage calculated to restrict deliveries under these contracts; (2) by compiling and distributing lists of freight rates from arbitrary basing points to numerous points of shipment; (3) by the exchange of credit information; (4) by discussion at the association meetings. Here, too, there was an absence of all agreement or understanding as to production and prices, and there was no proof

that prices were excessive. The principal issue, therefore, was whether "uniformity of prices and limitation of production are necessary results of these activities." With regard to the specific-job contracts, the court found: that the sale of cement for future delivery under such contracts was an established practice of the trade for which the association was not responsible; that the practical effect of these contracts was "to enable contractors who are bidding upon construction work to secure a call or option for the cement required for the completion of that particular job at a price which may not be increased, but may be reduced if the market declines"; that under these circumstances contractors frequently took advantage of their position to secure deliveries from several manufacturers of the full amount of cement required for the specified job, contrary to their rights or to the legal or moral obligations of the manufacturers; that the full information concerning these contracts secured through the association, and the vigilant checking of particular jobs, were merely designed to prevent fraudulent imposition upon the manufacturers; and that the actual cancellations of deliveries resulting from the association reports were but an enforcement, by the individual manufacturers and without agreement or understanding, of the terms of their contracts. Similarly, with regard to the freight rate-books compiled and distributed by the association, the court found: that their issuance resulted from the trade custom of selling cement at delivered prices, for which the association was in no wise responsible; that such lists of freight rates had been previously published by the individual manufacturers, and their publication by the association but assured greater accuracy and economy; that the basing points had not been fixed collectively or arbitrarily, but were points from which the great bulk of cement was actually shipped, and had been developed as a result of competitive conditions in particular geographical areas; and that "lists of freight rates, in convenient and readily available form, are necessary adjuncts to the quotation of delivery prices for cement." It was found that the credit information exchanged by the associates merely stated the facts as to delinquent debtors and set forth totals of delinquent accounts for comparison from year to year. No comment accompanied this information, and there was no proof "establishing an understanding on the basis of which credit was to be extended to customers." At the meetings of the association there was no discussion of current prices or of future production or marketing policies, and no evidence was adduced that any uniformity of trade customs or practices resulted from these meetings. To the contention that the uniformity of prices which prevailed in the industry was evidence of the necessarily restrictive character of the activities, the

court replied that "there were frequent changes in price, and uniformity has resulted not from maintaining the price at fixed levels, but in the prompt meeting of changes in prices by competing sellers"; and it referred approvingly to the testimony "given by distinguished economists in support of the thesis that, in the case of a standardized product sold wholesale to fully informed professional buyers, as were the dealers in cement, uniformity of price will inevitably result from active, free, and unrestrained competition." On the basis of these findings, and in the light of the principles enunciated in the *Maple Flooring* case, the court held that the activities subject to complaint did not necessarily restrain trade.

These decisions establish clearly that interchange of information among competitors, through the medium of a trade association, is not in itself unlawful. Do they go further? Do they constitute a reversal of the *Hardwood* and *Linseed* decisions, and thus validate such concert of action as was disclosed and condemned in those cases? That there is a conflict of opinion within the Supreme Court itself is apparent. In the *Hardwood* case three of the Justices dissented. Justice Holmes, Justice Brandeis, and Justice McKenna held the view that even the open-price plan of the *Hardwood Lumber Manufacturers' Association* was a legitimate attempt to organize and conduct the industry on an intelligent basis. In the *Maple Flooring and Cement* cases, where the informational activities were approved, there were also three dissenting Justices. Chief Justice Taft, Justice Sanford, and Justice McReynolds, who had been with the majority in the *Hardwood* case, regarded even the less flagrant activities of these later cases as illegitimate. Apparently the Justices are all agreed only upon this: that interchange of information may under some circumstances be abused, for in the *Linseed* case the adverse decision was by a unanimous court. But whatever the individual differences of view within the court, there appears to be no adequate ground for considering the opinion of the majority in the *Maple Flooring and Cement* cases a reversal of the earlier decisions. Justice Stone, who spoke for the court, clearly distinguished between the two sets of cases. There was no labored attempt to introduce a new legal doctrine without appearing to override an old one; the diverse circumstances and conditions surrounding the two groups of activities afforded ample basis for arriving at opposite judgments. In the *Maple Flooring* case, in which the more elaborate of the two recent opinions was rendered, Justice Stone developed carefully the following chain of reasoning: that each case under the Sherman Act must necessarily be determined on its own facts; that in order to succeed, the government must bring its complaint within the rule of the *Hardwood* and *Linseed* cases; that

the characteristic feature of those cases consisted in their involving concert of action; that such concert of action was entirely lacking in the instant proceeding; that while the collection and dissemination of trade information might be made a basis or instrument of concert of action, there was no necessary tendency for such an outcome to follow. And the opinion was concluded in these words: "We decide only that trade associations or combinations of persons or corporations which openly and fairly gather and disseminate information as to the cost of their product, the volume of production, the actual price which the product has brought in past transactions, stocks of merchandise on hand, approximate cost of transportation from the principal point of shipment to the points of consumption, as did these defendants, and who, as they did, meet and discuss such information and statistics without, however, reaching or attempting to reach any agreement or any concerted action with respect to prices or production or restraining competition, do not thereby engage in unlawful restraint of commerce." It would appear, then, that attempts to resuscitate the old practices, whether in the form of the open-price arrangements as revealed in the Hardwood and Linseed cases or in the form of the so-called Gary Dinners condemned in the Steel Corporation case,¹ are ill-advised.

V.

There is great promise in the trade association movement. It seeks to co-ordinate competitive forces without relinquishing the fruits that spring from individual initiative. It represents an attempt to secure voluntary regulation of industry from within, on the basis of actual experience and concrete needs, and thereby diminishes the necessity of less enlightened compulsion from without. It affords a means of steering a middle course between the waste and chaos of blind and unrestrained competition and the inflexible adjustments of authoritative control. It serves as a source of special advantage to small and medium-sized concerns, and tends to safeguard the community against the overwhelming power of giant consolidations. Even when particular associations overstep the bounds of legality, the task of enforcing the law is not fraught with the grave difficulties and untoward consequences involved in the dissolution of close combinations. But the opportunities for service through trade association activity that is clearly within the law are so great, that questions of legality should become increasingly less significant in the development of the movement. Attempts, through devious devices, to circumvent the law are but a manifestation of immaturity. It is along constructive channels that the promise of the trade association movement will be realized.

¹*U. S. v. U. S. Steel Corporation*, 223 Fed. 55 (1915); 251 U. S. 417 (1920).

STATISTICAL ACTIVITIES OF TRADE ASSOCIATIONS

By GERARD C. HENDERSON

New York City

There are few more fascinating pursuits than the study of the effect which economic and legal institutions have upon each other. A new economic institution makes its appearance, grows, waxes strong. It encounters legal restraints, perhaps arising out of tradition, or based on a chance legal precedent, or perhaps representing a hostile economic interest. The tug of war begins. If the economic institution is vital and draws sustenance from important springs of human endeavor, the legal restraints will begin to show signs of strain. Precedents will be distinguished, principles encroached upon by exceptions, and the symmetrical pattern of the law distorted. Perhaps a new equilibrium will be found, or perhaps the legal restraints will snap and fall asunder. Perhaps again they will prove the more tenacious of the two, and the economic institution will perish, throttled by the dead hand of the law.

The law affecting trade associations is now in such a period of strain. Of the importance of the trade association as an economic institution, of its amazing growth during the past quarter century, I need not speak, for these are matters of history known to you all. Until recently, the conflict between the trade association and the law has been no more than a series of skirmishes. The decisions have dealt with activities such as coercive boycotts, blacklists, and price fixing by no means essential to the life of the association. But with the American Column and Lumber Company case, in 1921, and the American Linseed Oil case, in 1923, the lines began to tighten, and in the cases decided by the Supreme Court last June the trade association had come to a final grapple with the restraints of the law in matters vital to the usefulness and even existence of the association. To compile, circulate, analyze, and discuss trade statistics gathered from its members is of the very essence of trade association activity. If these activities were prohibited by law many associations would become mere debating societies upon academic questions of ethics and economics. It is this very need for a central statistical clearing house for the trade which has been one of the main causes of the phenomenal growth of trade associations in recent years.

The decisions last June have been hailed on the one side as a new charter of liberties for trade associations. On the other hand, it has been asserted that the cases rested on peculiar facts, and made no real change in the law. There is no doubt that the opinions of

Justice Stone approached the subject from a point of view more in sympathy with trade association ideals than the opinions in the earlier cases. But opinions are not precedents, and I will ask you to follow me through a somewhat detailed analysis of various types of trade association activities, in order that the scope of the decisions can be made clear.

Let us begin with a simple case. An association, through its statistical bureau, receives from each member current reports showing in detail the production, orders, shipments, stocks on hand, and unfilled orders of the member in question, and also giving details of individual sales actually consummated, including quantity, grade or quality, and price.

The statistical bureau compiles from these reports figures showing the aggregate of production, orders, shipments, stocks and unfilled orders, and a tabular list of the sales consummated. These compilations are embodied in a bulletin, which is circulated among the members, copies being furnished the Department of Commerce and the trade journals. All the figures, it should be noted, relate to past transactions. There is nothing said as to future prices, schedules of output, or sales policies.

It is surprising that the lawfulness of such a plan for gathering and distributing statistics should ever have been in doubt; yet it was only established by decision of the Supreme Court last June, after re-argument, and over the dissent of the Chief Justice and two Associate Justices. The dissenting opinion of Justice McReynolds breathes a spirit hostile, it would seem, to all statistical activities of trade associations, based on confidential data furnished by members. The Chief Justice and Justice Sanford dissented on the authority of previous cases.

Before the decisions last June, such a plan, although not squarely condemned by any decision of the Supreme Court, was, to say the least, under the gravest suspicion of illegality. "Genuine competitors," the Supreme Court had said in the *American Column and Lumber* case, "do not make daily, weekly, and monthly reports of the minutest details of their business to their rivals."

Following the decision in this case, reports the Department of Commerce, many of the trade associations abandoned entirely their statistical activities, for fear of running afoul of the law. The Attorney General, in his letter to Mr. Hoover, on February 8, 1922, said cautiously: "I can now see nothing illegal" in activities of this kind, "provided always,"—note the qualification—"that whatever is done is not used as a scheme or device to curtail production or enhance prices, and does not have the effect of suppressing competition."

To circulate figures showing prices received in individual transactions was supposed to place the association under a peculiarly thick cloud of suspicion. In the report of the Department of Commerce on trade associations, published in 1923, the chapter on the legal aspects of statistics had observed that "probably the most 'flammable' material which a trade association can use is statistics of sales prices. To the preceding statistics of production, stocks, and sales it is like the tip of the parlor match, which on a slight friction sets the whole head in a blaze." And Mr. Hoover, in his address to the Trade Association Conference in Washington, on April 12, 1922, had announced that "the officers of the Government do not believe that these functions (open price reporting) are in the public interest, whether they are used in violation of law or not."

The decision of a majority of the court in the *Maple Flooring* case, decided June 1, 1925, has, however, cleared up any doubts on the subject. The case has settled the point in favor of the trade associations. It can now be accepted as a guide for future action, that an association may gather from its members statistics of production, orders, and sales, including the quantity, grade and price of individual sales, and circulate this information to its members, the trade journals, and the Department of Commerce, without risk of prosecution under the Sherman Law.

We will proceed a step further. Suppose that, instead of merely circulating the dry statistical summaries, the association should add an editorial department to its weekly bulletin, and employ an editor with a literary bent, to soliloquize on matters of interest to the trade. In his editorials he takes occasion to comment from week to week on conditions in the trade, as revealed by the statistical summaries. On one occasion he may point out that orders during the past month are shown to have exceeded shipments by 20 per cent, with a consequent stiffening of prices. On another occasion he may comment on the fact that production and stocks on hand are at record figures, whereas for the past few weeks new business has shown a tendency to decline. The comments, as well as the figures, have in a few cases some effect on the business policies of the members of the association. In the first instance they may lead several firms to the view that the trade will stand a slight rise in prices. In the second instance a number of concerns may decide that it is wise to curtail production. I am not now dealing with a case in which the association bulletin either advises or suggests increase of price or curtailment of production. It merely presents and analyzes facts.

In the report of the Department of Commerce there is a suggestion that even such a dry and matter-of-fact analysis, while perhaps le-

gitimate in the circulation of cost accounting data, is reprehensible in connection with statistical activities of the kind here considered:

"There does not seem to be the same necessity nor justification of collective study of production, stocks, and sales statistics as is shown by production-cost data. In fact, it would be hard to justify more than the barest and most condensed tabulation of such statistics. To attempt more is almost certainly to tend to suggestion or discussion concerning the rate or volume of production or stocks in relation to prices."

The point is difficult to grasp. Whether statistics are given numerically or graphically, vertically or horizontally, in words or in figures, does not affect their inherent quality as presentations of existing fact. If editorial comments can be confined to presentations of fact, they do not, it would seem, differ in quality from the statistics they are meant to illuminate.

The difficult questions arise at the next stage of the discussion. Suppose that the statistician or editorial writer begins to draw conclusions with reference to future action, to suggest conduct, to advise and exhort. He may say, for instance, that all the statistical factors point toward and justify an increased price, and that if producers will only resist the blandishments and misrepresentations of unscrupulous buyers, if they will keep an eye on the main chance and not yield to the temptations of immediate profit, there are glorious opportunities ahead for the industry. Or he may say that the disparity between production and demand, as revealed by the current statistics, is more menacing than it has been at any time since the spring of 1920, and that producers who persist in their present orgy of overproduction should bear in mind the fate of their comrades who pursued the same course just prior to the last period of deflation. Note that I am not supposing that he is advocating any concerted action. He is not suggesting that all members, on a certain day, raise prices by so much a pound, or curtail production 10 per cent. He is merely addressing to each reader arguments designed to influence the reader's individual judgment as to his independent action in the future.

This was the question presented in the American Column and Lumber case, and the decision was that where there is such a combination of statistical activity and editorial activity, not only the preachments of the editor, but the circulation of statistics as well, become illegal. In this case, in addition to the circulation of the bulletin, it was noted that the association held periodic meetings, and that at these meetings speakers had frequently referred to the production reports,

"with the implication, not disguised, that higher prices must result." The decree of the court forbade the distribution of reports, the discussion of prices at association meetings, and the exchange of predictions of high prices. Since the majority opinion in the *Maple Flooring* case does not purport to overrule this decision, the two cases together must be understood as standing for the following propositions: first, that the gathering and circulation of production, sales, and price statistics is not of itself illegal; that it may, however, be used for a wrongful purpose; and that editorial opinion in statistical bulletins and oratory at meetings may reveal and expose the nefarious purpose of the whole plan. The result is that an association possessing the requisite purity of purpose may circulate statistics, but that precisely the same statistical activities may be prohibited on the part of an association whose purpose is, or has been, sinister. Whether an association which has once been disqualified can purge itself of wrongful purpose, and how the purging process can be accomplished, one cannot, in the present state of the authorities, clearly state.

It is, of course, frequently the case that the lawfulness of conduct depends not alone upon the things actually done, but upon the purpose for which they were done. If I step on a man's toe through inadvertence I may be blameless, while the same physical action motivated by dislike might subject me to a charge of assault and battery. In a murder case, felonious intent is one of the most frequent subjects of judicial inquiry. These are cases in which the inquiry is as to the mental state of a specific individual—as to whether he knew the revolver was loaded, or desired the victim's death. But in dealing with an association, the problem is entirely different. It is fashionable, as well as convenient, to personify groups, and attribute to them the various elements of individual psychology, and generally the personification can pass without challenge. But where we speak of the purpose of an association, and judge the lawfulness of its conduct by the propriety or impropriety of its purpose, it is important that we know what we are talking about. Are we inquiring as to the mental state of the secretary who compiles and distributes the statistics? Or the mental state of the members? Suppose that half the members support the association from motives which the law regards as proper and half the membership from forbidden motives?

The greatest danger of loose thinking in trade association cases lies in the fact that it is by no means clear what purpose the law condemns and what purpose it considers laudable. A purpose is a mental picture of something desired to be accomplished. If such a mental picture accompanies action tending toward its accomplishment, we call it the purpose of the action. What is the mental picture

accompanying the distribution of statistics which renders it unlawful? All that we can get from the authorities is that the conduct is unlawful if its purpose is suppression of competition or enhancement of prices, or restraint of trade. You will find it an interesting exercise to sit quietly in your chair for a few minutes and endeavor to create a mental picture of restraint of trade. It is not a phrase which describes anything concrete or specific, but rather a convenient epithet which we apply to a lot of things that we do not like, and even the Supreme Court has been unable to tell us clearly what it covers and what it does not. Enhancement of prices is a more tangible concept, but what business man motivated by normal acquisitive instincts does not desire an enhancement of prices? Suppose that an industry is in a stage of abnormal depression, accompanied by disorganized and unintelligent overproduction. A trade association is formed, in the belief that overproduction may be rectified by a general knowledge of the statistical position of the industry. Probably every member will have in his mind a clear picture of the cents per pound he would like to have added to the price as a result of the statistical activities. Of course if properly advised by counsel, he will say that his purpose is the accurate dissemination of statistics, and the rectification of overproduction merely a concomitant by-product, but we know that these are merely verbal differences, too fine to be made the basis of a distinction between legal right and wrong.

Nominally, the majority and minority in the recent cases differ only in their interpretation of the facts. A minority thought that the conduct of the members of the association warranted an inference of improper purpose. A majority could find in the facts no basis for such an inference. Yet I cannot help feeling that the difference lies much deeper, and that majority and minority would be found to disagree even if the mental condition of the members of the association could be photographically depicted on the court room walls.

I cannot believe that a psychological inquiry into the state of mind of each member of an association can be relevant to the issue of the lawfulness of an association. When we discuss the purpose of association activities we are speaking not psychologically, but sociologically; we are discussing not the state of mind of the members or even of its officers and agents, but the economic function and probable effect of the activities in question. The word "purpose" in the current legal discussion must be used in the sense in which it is used when we speak of the purpose which a wheel or a bolt fulfills in a steam engine. We are not so much concerned with the state of mind of the man who put it there, as with the functional object which the wheel or bolt achieves.

Is not this the correct approach to the study of trade association activities?

Circulation of statistics, discussion of statistics, even—though here I appreciate that I tread upon debatable ground—preachments at meetings and in trade journals on matters of trade policy, are primarily means of circulating information and of education on trade matters. Let us inquire into the economic and social advantages and disadvantages of such activities, instead of pursuing a vain hunt for a phantom purpose, undefined and perhaps no more than a product of legal fiction. On one side of the scale we may weigh the fact that such activities may facilitate conduct which the law denounces. It cannot be denied that an organization which gathers and distributes statistics, which provides a common forum for the industry, which promotes good fellowship, and habits of co-operation, may make it easier to indulge in boycotts, price fixing, or other oppressive trade practices. On the other hand, we should weigh, and in my opinion most heavily, the social advantages of research, of free interchange of information, of open discussion, in short, of freedom of speech and of the press. We should weigh also the circumstance that the administration of a law directed against discussion and exchange of information is in the long run illusory. We may exercise a censorship over trade publications; we may prohibit trade association meetings, or require that they be conducted under the legal eye of the ubiquitous general counsel, ready to raise a warning hand whenever forbidden topics are touched upon. But how can we extend the censorship to private conversations? How can we be sure that the presidents of two leading concerns in the trade will not meet at the lunch club and exchange views upon matters of common interest? And is it worth while forbidding members of the trade to do in public what they cannot be prevented from doing privately?

Our outlook on the subject, and even the outlook of the courts, is inevitably affected by circumstances that do not always have a proper place in a logical analysis. There have been grave abuses in the history of some trade associations, as some of the litigations under the Sherman Law and the Trade Commission Act have shown, and some of these cases have doubtless left in the minds of judges and legislators a feeling of resentment not easy to overcome. Officers of associations do not always have the public point of view, the willingness to hear the other man's argument, the tolerance of criticism, so essential wherever public relations are involved. An association provides for its members a useful means of defense against unjust attack, but it also furnishes to its enemies a target upon which attacks can be centered. The public likes to personify an industry, and to trans-

late economic tendencies in terms of conspiracy and of the machinations of a few individuals. An industry with an active and influential trade association is much more on its good behavior than an industry that is disorganized. It is to be hoped that trade association officers will not overlook the point that the future development of the law will doubtless depend greatly upon the manner in which they exercise the new freedom granted to them by the courts, and the manner in which they demean themselves in their public relations.

TRADE ASSOCIATIONS—DISCUSSION

WILSON COMPTON.—For many years public and professional discussion of trade associations has usually drifted into terms of law, into talk about restraint of trade, and into anxiety for the future of the competitive system.

Like many another novel development in our economic life, it has been looked upon with skepticism. Those who thought and knew, could visualize its constructive possibilities in terms of economic and social progress. Those who did not think and did not know, looked upon it as an agency of monopoly and economic oppression—to be resisted and destroyed.

Probably the average public attitude in the past toward the trade association movement has been defensive—as against a social liability. Today it is at least receptive—as to a probable economic asset. This is merely a part of the process of the evolution of economic institutions of which Mr. Henderson has spoken.

Trade associations during recent years have had their greatest publicity and prominence in terms of Government investigations and litigation. It is not unnatural, therefore, that people should have been led to think of the association movement in the negative terms of anti-trust laws rather than in the positive terms of substantial assets to economic welfare. Over-emphasis has undoubtedly been given to the legal aspects of trade association. Agitation and controversy over legality were of course inevitable during the period during which trade associations were graduating from the older type of semi-social organization to the present characteristic type of solid, continuing, and well-financed business institution. I make no comment upon the abuses and deficiencies which have characterized trade associations. These are obvious and are well known; and they have been convincingly analyzed by both Professor Sharfman and Mr. Henderson.

But an institution will make permanent progress, not by mere negative omission of the acts which the law of the land prohibits, but by the constructive development and application of those economic forces which the progress of the industries and the public welfare demand. The advice of the lawyer to whom Mr. Henderson refers as the "ubiquitous general counsel" is, of course, necessary as a safeguard against overzeal and abuse. But this is a service of subtraction. Whence then is to come the guidance and the impetus through which co-operation among competitors through trade association may make the maximum contribution to economic progress?

I am not belittling the service of the lawyer to the trade association movement when I, who am both a lawyer and an economist, say that the constructive future of trade co-operation is in my judgment to be found, not by the lawyer, but by the economist. In the Book of Luke, the "general counsel" finds this admonition: "Woe unto you, lawyers, for ye have taken away the key of knowledge; ye entered not in yourselves, and them that were entering in ye hindered." I find no such admonition of the economist!

As long as the trade association movement was on the defensive, was groping for its permanent moorings, and was gaining trustworthy experience by the practical but perilous process of trial and error, the focus of attention upon the permissions and the prohibitions of the law was inevitable. The period of legal technicality has apparently been passed. The Maple Flooring and Cement case decisions of the United States Supreme Court, to which both Professor Sharfman and Mr. Henderson have freely referred, have converted the problem of trade association conduct from one of avoiding technical violation of statute to one of maximum performance of industrial and public service. The fundamental issue which came to be involved in the succession of trade association cases was not the mere right of particular individuals to do certain things collectively, but whether the institution of competition, in the sense of free, fair, and equal opportunity between competitors to trade on a basis of equal bargaining advantage, would be preserved; or whether, in an effort to enforce the letter of a statute, as distinguished from the public interest which the statute was designed to protect, we might cling to the form of competition and lose its substance.

I take it to be a safe assertion that the anti-trust laws have been designed for the principal purpose of either preventing or destroying monopoly or restraint upon free, fair, and equal competition which would lead to the arbitrary control of prices or production. Let there be no doubt of the fact that, for practical purposes, the recent trade association decisions in the Supreme Court are epochal, or that they constitute in substance a reversal of earlier decisions. I have been associated with counsel in two of the principal association cases before the Federal courts during the last five years. I know somewhat the public construction placed upon these decisions and the extent to which the findings of the Court were in accord with the actual facts in the trades involved. The two recent decisions to which both Professor Sharfman and Mr. Henderson have referred ought to be looked upon by economists as a distinct vindication of the adaptability of judicial interpretation to economic facts. The logic of the Supreme Court in its formal opinion is economic, not legal. It shows a significant degree of flexibility in the application of the law to changing conditions. It means in substance that the anti-trust laws are being applied so that the public purposes of the statute and not merely its barren phrases may be made effective.

During the past five years, the process of public education to an understanding of the fundamental economic meaning of trade co-operation through associations has manifestly resulted in a more accurate and certainly a more tolerant appreciation of its strength and its weakness, its advantages and its drawbacks, and its ability to do harm and its capacity to do good. The analysis presented here by the principal speakers is both clear and fair. Trade associations are relatively a new institution. Generally speaking, their policies represent the most forward-looking views and the highest ethical standards within their respective trades. They represent the most powerful organized machinery in existence today for the self-

government of industry. Public agencies such as the Federal Trade Commission can proceed only by injunction; prosecuting agencies, only by the force of statute law. Trade associations, on the other hand, generally represent organized public opinion within their respective industries or trades; and, as long as the prevailing fundamental sentiment of American business is in support of high standards of commercial ethics, honesty, and fair dealing among competitors and with the public, so long will the capacity for and the probability of good through trade associations exceed the likelihood of evil.

If in any important respect the leading papers have been perhaps deficient, it is in the underemphasis given to constructive activities of trade associations in our principal industries. These have been repeatedly and strongly commended by the Secretary of Commerce, Mr. Hoover, in official reports and in public address. The Secretary of Commerce has probably contributed more than any other citizen to the forward-looking policies of American industries which are gradually being worked out through their respective trade associations. The progress in this direction has, I believe, been due primarily to the fact, obvious and precious to us who are directly identified with trade organization activity, that vastly greater consideration is being given to the public welfare and public service aspects of industrial and commercial policies.

Perhaps, with your indulgence, an example of this tendency may be made by an illustration drawn from the timber and lumber industries with whose affairs I am associated and intimately familiar. Its activities involve problems peculiar to the ownership, administration, and use of natural resources—in this instance, of forests, the only natural resource which is capable of replacement after use. Lumber manufacture is a substantial activity in thirty-six states. There are approximately thirty thousand individual producing units widely scattered. The ownership of standing timber is still more decentralized. There are about five thousand wholesale distributing units in the lumber trade and between twenty-five thousand and thirty thousand retail lumber establishments. No single ownership operates or controls as much as 1 per cent of the lumber output. Lumber is characteristically an industry of small units. To this rule there are not more than half-dozen exceptions. It has a total producing capacity considerably in excess of the maximum annual demand for its products. Its very make-up constitutes a safeguard against monopoly and substantial trade restraint, but no safeguard against wastes or inequality in the conditions of competition, nor a guaranty of trustworthy and efficient service to the lumber-using public.

The lumber trade now is highly organized. There are national, regional, and state associations of retail dealers, wholesale dealers, lumber manufacturers, and timber owners. I can speak with authority, not for the lumber dealers, but for the lumber manufacturers and timber owners.

The National Lumber Manufacturers Association is a federation of fourteen regional associations, including the entire lumber manufacturing industry so far as it is organized. In all of its activities it spends about

three-fourths of a million dollars annually. It does engineering, testing, scientific, statistical, and economic research, advertising, publicity, standardization, waste prevention, wood utilization, forestry, and general trade extension work in behalf of the producers and consumers of forest products. It conducts an insurance exchange and a capital and credit rating and collection service for the convenience and economy of its clients and as a means of driving crookedness and commercial fraud out of the lumber trade.

It represents the lumber industry before committees of Congress and government departments with which as agencies of the public it is co-operating. Through the so-called "American Lumber Standards," now officially endorsed by the Department of Commerce, it has been instrumental in providing the lumber trade with a system of weights and measures which has been a great fundamental aid to freedom, fairness, and equality in lumber competition, and a great protection to lumber users.

It is given credit for having greatly stimulated interest in, and commercial practice of, forestry in the United States—an activity in which marked progress is being made.

The services of its building code engineers are in constant demand from city building officials throughout the country. Public confidence in this phase of our work is undoubtedly due to the fact that we have as consistently opposed building code provisions unduly and unsafely liberal to the use of lumber, as we have opposed provisions unnecessarily restrictive of the economical use of lumber in construction.

Its current statistics, showing changes in lumber supply and lumber demand, without any interpretation or editorial comment whatever, have for many years been made available as completely and as promptly to lumber buyers and lumber consumers as to its own immediate subscribers, the lumber manufacturers. It has consistently pursued, in practice as well as in principle, the policy that both seller and buyer, both producer and consumer, are benefited by making available to each alike the most accurate information regarding current conditions of supply and demand.

I am not saying that the pursuit of this policy has been without considerable antagonism, friction, and conflict within the association itself. But that is merely a matter of association administration; and the fact that several thousands of timber companies have continuously for some years supported an association committed to such policies and in fact have increased its total revenues many fold, is an indication of solid, sound, and substantial sentiment in that industry, which permits of no debate.

The activities and accomplishments of the lumber industry in the field of standardization during the past five years have elicited from the Secretary of Commerce the repeated public comment that this has resulted in savings to the lumber trade, lumber consumers, and the public generally, of scores of millions of dollars annually; and to use his own phrase, that the lumber industry now leads all the industries of the United States in the

"establishment of rules for fair dealing." These are the tangible results of association.

I have no reason to believe that the National Lumber Manufacturers Association, from which this brief illustration is drawn, is unique among industrial associations. I suspect that it has had more than average success in the sense of practical accomplishment. But I know scores of other associations in American industries and trades whose activities have been beneficial to buyer and seller, producer, and consumer alike, which also have been involved in no litigation and hence had no notoriety, whose constructive activities indicate that the reins of control of American business policy are more and more being assumed by a forward-looking leadership, which, by co-operation between the producer, distributor, and consumer, is seeking in good faith to give to the public the benefits of competition and to the industries and trades themselves the benefits of co-operation.

This promise for the future will be realized through trade associations, not so much by keeping their eye upon the Sherman anti-trust law and the Federal Trade Commission Act, but by a consideration in good faith of public interests and the public welfare, and by a determination to share fairly with the public the benefits of lawful co-operation. Thus conceived—and is it not after all a practical conception—it is not merely competition, but co-operation in competition, which is the life of trade.

MYRON W. WATKINS.—The papers which have just been read illuminate certain aspects of the trade association movement admirably and deserve close study. But both Professor Sharfman and Mr. Henderson have devoted themselves primarily to the legal issues which business co-operation provokes. Preliminary to what I have to say by way of criticism of their analyses, I should like to direct attention for a few moments to the economic nature and historical significance of trade association developments.

The growth of these co-operative organizations of independent business units represents, as I view it, a modification of the established organization of industrial control. Trade associations are progressively remodelling the system by which the productive and distributive processes are governed. By this I mean that the determination of the sorts of things which are produced, how they are produced, the volume in which they are produced, and the conditions under which they are sold, is becoming more and more of a collective responsibility and a conscious decision. And it is, of course, becoming correspondingly less and less the chance outcome of the independent volition of numerous competing producers, as it has traditionally been supposed to be. It requires no assumption of illicit "agreements" to justify this view. The standardization of products, the formulation of ethical codes, and the systematic collection of comprehensive trade statistics, to mention only three prominent association activities, plainly work in the direction I have indicated, irrespective of the concerted enforcement of uniform policies. Indeed, it is of the very essence of every form of trade association work that the individual business unit is regarded as

incapable of finding and pursuing sound policies acting in isolation, and that only in the knowledge of what other concerns are doing and proposing to do can the "right" policy be recognized; and if the trade association fulfills its function, that is the policy which will be followed. There need be no compulsion in such business co-operation. "By its fruit," a trade association will be known. Let it be distinctly recognized, moreover, that there is no implication here of secret and predatory designs among trade association members. I would simply emphasize that group judgments, or more strictly individual judgments influenced by industry-wide group action, are continually molding the conduct of business enterprise to a greater and greater extent.

There should be nothing in this transformation of the organization of industrial control, however, to arouse grave fears or, for that matter, to awaken high hopes, when it is viewed in historical perspective. If I interpret the development of industrial control during the last six centuries correctly, it has passed through three large phases. Roughly, each phase may be allotted a period of about two centuries. In the 14th and 15th centuries the direction and character of industrial activity were determined predominantly by autonomous bodies composed of and comprising those engaged in each special field of production. It was the period of the craft guilds. These organizations were more or less voluntary, more or less private associations of proprietarily independent productive units. But they exercised a large degree of control over the manner of conducting industrial operations and the relations of the masters to the market and the community. The 16th and 17th centuries witnessed a transformation in this system of industrial governance, consisting in the substitution very generally of the coercive authority of the state for the collective will of each industry. This was the period of mercantilism, Burleighism, Colbertism. The state undertook, or at least according to prevailing conceptions of what constituted sound policy, was supposed to undertake, the regulation of what things should be produced, how they should be produced, and even where and on what terms they should be sold. Finally, during the 18th and 19th centuries, arbitrary and authoritative control was gradually relinquished and the direction of industrial processes was left to the inter-play of competitive forces. This was the era of *laissez faire*. Each individual productive unit in any line of industry was allowed and expected to make its own decisions as to what, when, and how to produce.

It need hardly be reiterated that no rigid date lines mark the boundaries of these successive phases; but it should perhaps be observed that at no time in any one of these three periods was there exclusive adherence to a single principle in the regulation of industry. One is justified only in the statement that the dominant characteristic of the industrial organization of the 14th and 15th centuries was autonomous association, of the 16th and 17th centuries, coercive authority, and of the 18th and 19th centuries, individual initiative or free enterprise. I submit that experience does not give ground for the conclusion that either an industrial millenium or economic decay must necessarily attend a movement toward the reorganiza-

tion of industrial control in any one of these three directions. Perhaps each is particularly suited to certain peculiar objective conditions or to a certain stage of cultural advancement. Perhaps an enduring synthesis may eventually be achieved. But be these things as they may, I should like to leave with you the question if the trade association movement may not indicate a recurrence in the 20th century of the plan of industrial control which flourished six centuries ago? And if such is the case, may not something be learned as to a proper attitude towards trade associations from a study of the external forces and internal weaknesses which brought about the abandonment of their prototype some four centuries since?

Your indulgence is asked for the abruptness of the transition in passing, now, directly to the consideration of the legal issues treated by Professor Sharfman and Mr. Henderson. What is the significance of the recent *Maple Flooring* and *Cement* cases upon the position and prospects of trade associations? And are these cases reconcilable with the earlier decisions in the *Hardwood Lumber* and *Linseed Oil* cases? These four cases, considered together, exemplify admirably the concrete application of the "rule of reason." They do not much clarify the legal situation, however, as Mr. Henderson has explained. Nor do the two recent cases, because of their favorable outcome for the associations, appear to contribute any additional liberty of collective action among trade competitors; and in so far I should agree with Professor Sharfman. The *Maple Flooring* and *Cement* cases, by the confession of the Court, rest upon exactly the same principles of public policy as the *Hardwood Lumber* and *Linseed Oil* cases. The sole important difference between the earlier cases and the later cases is that in the former the Court found "ample evidence" of concert of action, and therefore inferred a tacit understanding upon market policies, while in the latter the Court could find no evidence of concert of action in respect to production or price policies and therefore concluded there was no element of agreement or conspiracy in the relations of the defendants. There the differences end. If you seek the concrete facts which led the Court to take one view of the co-operative activities of trade competitors in the first two cases and an opposite view in the two recent cases, you will not find them in the opinions.

True, the Court relates numerous circumstances calculated to support its interpretation of the record in each of these four instances. But I think I am correct in stating that not in a single respect are the facts specified in support of one of these decisions in harmony with the comparable facts in the other case decided the same way and contrary to the situation disclosed in the two cases decided in the opposite way. Thus, in respect to the character of the statistical data interchanged, it was at least as detailed, or "intimate," in the *Cement* case as in either the *Hardwood Lumber* or *Linseed Oil* cases. In respect to the publicity given the information assembled, none of the four defendant associations stood in a better light than the *Hardwood Association*. If the *Linseed Crushers' Council* operated secretly, so also did the *Cement Manufacturers' Association*. In respect to the reporting of so-called "future prices," or prices

current, the Hardwood Association appears to have been no more of a miscreant than the Maple Flooring group, and the Cement Association no less reprehensible than the Linseed Crushers' Council, if this be considered an element in the latter's offense. In respect to the sanctions and precautions for the honest observance of the reporting agreement by all the associates, if the linseed oil producers erred in the binding character of the obligations assumed, no less so did the cement manufacturers. And if the Maple Flooring Association was without fault in this respect, so also was the Hardwood Association. In respect to the offering and receipt of advice, opinion, or counsel, or the common participation in mutual exhortation, if the cement manufacturers were free of guilt, so also were the linseed crushers. And it might be well not to overlook the fact that the trial court in the Maple Flooring case found, in connection with the association meetings, what the Supreme Court was unable to find, evidence of the exertion of the pressure of group opinion to induce conformity to policies deemed mutually advantageous. Finally, in respect to the existence of agreements, the importance of which Mr. Montague has just emphasized, if there is no evidence of express commitments in the recent cases, neither is there in the earlier cases. And if there were discovered grounds for the assumption of a tacit understanding in the earlier cases, it should not be forgotten that those grounds lay, at least according to the express declaration of the Court, in the structure of the plans before it and not in any peculiarities of their operation. Thus, in the Linseed Oil case, the Court stated that the "necessary tendency" of the subscription contract was to suppress competition. And yet looking solely to the same features of the later cases, and without, as I think I have shown, developing any adequate distinction between the formal characteristics of the statistical plans which were before it and those which it had previously condemned, the Supreme Court reached opposite conclusions.

Without disputing the validity of the Court's judgment in the recent cases, and without attributing to it any unacknowledged change of policy, it should be evident from the foregoing analysis that it is futile to attempt any rational reconciliation of the earlier cases with the Maple Flooring and Cement decisions. The truth is that under the rule of reason, whether it be judicially admitted or judiciously omitted, the real explanation of the attitude towards a defendant association is in the way the Court *feels* about its conduct, and not in how the Court *reasons* about its organization. For it should be abundantly evident that any reasonable person could have taken either one view or the other of the legitimacy of any of the defendant associations, under the vague and indefinite standards of the rule of reason. In these circumstances, what is stated in the opinion is chiefly by way of justification of the judgment after it has been reached, rather than the exposition of a process of reasoning leading up to the judgment. In consequence the wordy disquisitions of legal logicians in defense of each successive decision of the Supreme Court, as it appears, are beside the point. They are inherently impotent to disclose the essen-

tial basis for the opposite decisions rendered in the Hardwood and Linseed Oil cases and in the Maple Flooring and Cement cases.

The real explanation of the contrary decisions in 1921 and in 1925, admitting with the Court that there has been no change of policy, is not that in examining the respective records the Court saw different things, but that it saw things differently. Fundamentally, the change in general business conditions accounts for the opposite view taken in the earlier and in the later cases, i. e., it accounts for the fact that the Supreme Court felt differently about statistical co-operation among trade competitors in 1925 than it did in 1921. It will be recalled that the record in the Hardwood case was based principally upon the operations of defendants in the year 1919. It is not surprising, therefore, that lumber prices were found by the Government to have advanced tremendously shortly after the organization of the association in December, 1918, and this fact did not escape the attention of the Court. Tucked away beneath a mass of verbiage may be found a short statement which I venture to suggest is more significant than all the rest of the opinion. It reads: "The record shows that the prices of the grades of hardwood in most general use were increased to an unprecedented extent during the year. Thus, the increases in prices of varieties of oak, range from 33.3 per cent to 296 per cent during the year, . . . and of gum, 60 per cent to 343 per cent. While it is true that 1919 was a year of high and increasing prices generally and that wet weather may have restricted production to some extent, we cannot but agree . . . in the conclusion that the united action of this large and influential membership contributed greatly to this extraordinary price increase." Likewise in the Linseed Oil case the record was based upon the operations of the defendant association over the period of abnormal inflation from 1918 to June, 1920. In the two recent cases, on the other hand, the record in both instances covers operations following the collapse of prices with the termination of the post-war boom. It was from the course of business in 1921 and 1922 that evidence of an unreasonable restraint of trade had to be drawn, and not even the exceptional vitality of the building industry could completely counteract the general stagnation. As a consequence the Government was unable to paint a very terrifying picture of the predatory power of the defendants and the prosecution failed. In the Maple Flooring case the Court pointedly declared there was "no proof that the activities of the Association had affected price adversely to consumers. . . . There is undisputed evidence that the prices of members were fair and reasonable."

Such is the outcome of the application of the rule of reason to trade association activities. Whether it is good or bad, it is not my present purpose to inquire; but I share Mr. Henderson's view that it must leave a business man with good intentions no less perplexed than he was prior to all this litigation. It may be suggested in conclusion, however, that there are grounds for a reasonable expectation of the continuance of the attitude of tolerance evinced in the Maple Flooring and Cement cases, inasmuch as the extraordinary movement of prices in the years immediately following the war is not likely soon to be duplicated.

VIRGIL JORDAN.—Most of those who have had a part in some of the newer developments in business organization and conduct in recent years will find it easy to share the enthusiasm expressed in these papers about certain aspects of the trade association movement and about changes in the attitude of the courts toward them. No one will question that better knowledge, a spirit of sincere co-operation, and higher ethical standards in business conduct are in themselves quite good things. But to the detached bystander, in a quite unprofessional state of mind, the most striking thing about these discussions of trade association activities and governmental regulation is their uncritical, somewhat sentimental, and almost apocalyptic character. I can draw little satisfaction from panoramas of the boundless potentialities of trade association or from dialectic dissection of the differences between innocent information and sinister statistics till I am certain whether we are looking at a changed situation with the same mind or at the same situation with a changed mind.

I do not think the law or the public or the economist or the business man is going to get anywhere in dealing with matters of this kind until he is quite objective and specific in his thinking about them; and it is this quality that I miss in most discussions of them. They are vague and unsatisfying. But if we cannot get a detached, realistic, and consistent evaluation of relative claims, description of processes, and analysis of motives in phenomena of this kind from the student, who is supposed to have no axe to grind and no sword hanging over his head, from whom are we to expect it? Certainly not from the courts, and not from the business man either. The former necessarily have their eyes on the past; and for the latter, the evil of the day is sufficient. I do not see that our ability to deal with the concrete problem of public policy, which is that of relating a traditional past and a practical present to an ideal future, is much enlarged by rhapsodies on the virtues of co-operation and better knowledge or by elaborate distinctions between "destroying," "suppressing," "regularizing," "raising the plane of" or "preserving the freedom of" an abstract competitive process which is still as devoid of any specific or intelligible meaning in discussions of this kind as our old friend "the cost of production" is in discussions of the tariff. In any realistic sense it is as futile to talk of regularizing competition as it is to talk of making it free or of destroying it. It is, I may observe, because the question is approached in a pragmatic spirit, and not because it enunciates any new principles or throws any new light on the mysteries of competition, that the Maple Flooring and Cement cases are significant.

If we must have any general principles or concepts as a crutch in the settlement of these problems, and I think we shall need them, I do not believe we can find useful ones in any arduous exploration of the ethical or economic jungles to discover a rational or fair competition. We can find such principles only through a realistic scrutiny of motives, for motives are the ultimate realities in economic as in other behavior.

We must frankly face the fact that any phenomenon such as business association is rooted in and grows out of a soil of an acquisitive economy,

a soil that shows no sign of diminishing fertility. The growth and forms and concrete expressions of such association are bound to be dominated by the hopes of profits rather than by the purpose merely of producing goods. It is folly to believe, and it is unnecessary to assume, that there is in the movement any fundamentally new element of altruism or social interest. Business men are not consciously engaged in any form of social service (or disservice, for that matter); they do not associate for such purposes, nor is there any reason why they should. I have no time to qualify this view by describing its grounds, but I insist that it implies no derogation of business conduct, and that there is nothing in it to be ashamed of or proud of in a world of things as they are. Quite the same thing applies to organization and association in any other field, be it labor, agriculture, or consumption.

Over and above this, in the realm of motives, is the effort to compensate for or offset the sense of insecurity and instability characteristic of a bleakly individualistic acquisitive pattern of existence, through the sociability or gregarious comfort which association affords. Even though these associations had absolutely no effect upon the competitive situation one way or another, you would find them just as tenacious. In one form or another they will always exist. In this respect it is possible that a great injustice was done to the Gary dinners, for example. All associative effort must be looked upon as an effort of the individual to make himself feel more at home in an unknown, uncertain, and hostile environment, and its success is proportionate to the degree to which the individual can transfer his private fears of his competitor, his misgivings about himself, and his personal sense of weakness to something outside the group. For that reason the more competitive internally a trade association may be, the more aggressive it is often likely to be in the public eye. But at bottom it is not the teeth and claws of competition per se that give rise to the sense of insecurity, but the fundamentally uncreative character of the productive processes carried on within an acquisitive economy.

One would like to know, on the basis of some case studies, how far these constructive activities of associations, for the regularization of business and the raising of the plane of competition and the dissemination of knowledge—all of which are designed to increase the security of the individual—can be carried before they impinge upon the other equally indispensable element of profit as the reward of initiative, risk, and privilege. Where is the dividing line, where is the golden mean, in any industry between centralization, regimentation, subordination, discipline, standardization, safety and possibly stagnation, on the one hand, and adventure, daring, risk, and reward on the other? When precisely does the sanctioned pooling of knowledge begin to level profits and the forbidden pooling of product raise them? At what point and at what stage of its development does the intensity of free competition in any industry so reduce the general or average level of profit as to make security and moderate return for all seem attractive to a large enough number to lead to and maintain association?

It would appear that in the close, objective analysis of the balance between profit and safety one must seek the answer to the many perplexing problems that the courts, the public, the economists, and the business men still have to face in relation to the trade association movement—questions reflected in the vacillation of the trade association movement in many industries, the high mortality, the persistent appearance of insidious group pressure in some and its total absence in others, the difficulty of determining when information is inflammable and when fireproof—questions that reduce themselves all to the single one of: "What are we (or you) driving at." If we can make up our minds what we are driving at in this movement toward association on the one hand and its regulation on the other, and set ourselves objectively to discover whether and how we can get it, we may then be able to talk of public policy in this connection with some intelligence and dignity. At present for lack of a realistic view of our business life, on the part of students and courts alike, we are trying to promote at once security and individual freedom, safety, service and profit, and the fundamental antinomies here involved, which were the cause of all our writhings of policy in the past, are not easily to be disposed of either by the courts or the association. In this view our present expectations of the trade association movement may prove to be as oversanguine as our former fears were exaggerated. The trade association movement is undoubtedly promising, but it is not altogether clear to anybody as yet what it promises and to whom.

GILBERT H. MONTAGUE.—The next five years will determine whether, during the next generation, the Government and the courts will continue their present friendliness toward "big business" and trade associations, or whether the present era of good feeling will soon be interrupted by another generation of hostility, repressive legislation, and drastic Government prosecutions. The Supreme Court decisions last June in the trade association cases were epoch-making. They breathed a keener appreciation of modern economic forces, and a greater sympathy for resulting business conditions, than the Supreme Court had evinced since 1911 when the Court first read the "rule of reason" into the anti-trust laws.

This newly-won ground will all be lost, however, if during the next five years business men, big and little, fail to heed the warnings emphasized by the Supreme Court throughout those decisions, and fail to convince the public, the Government, and the courts that the new freedom afforded by these Supreme Court decisions is not going to be abused. Good intentions alone will not suffice, for every new application of the anti-trust laws found well-intentioned business men honestly differing among themselves, like the judges and the courts, as to what is, and what not, a violation of law. Conformity to sound economic principles will not alone prevent this failure, for juries and courts, and not economists, always have the last word on this subject.

This last word depends, not on intentions, nor yet on economics, but upon the legal question, often forgotten by business men, and generally

ignored by economists, of whether or not there is present, anywhere in the situation, any agreement or understanding to limit production or to maintain prices.

Any such agreement or understanding, regardless of the good intentions of its participants, and irrespective of its conformity to sound economic principles, whenever it directly and substantially restrains any line of commerce, is forbidden always and everywhere, under all of our anti-trust laws, federal and state, no matter how liberally those laws have been or can be interpreted.

The Supreme Court held in the recent trade association cases that the collection and dissemination of trade statistics under the particular facts of those cases did not involve, and were not accompanied by, any agreement or understanding to limit production or to maintain prices.

The Court gave solemn warning, however, that in the future, as in the past, courts and juries must continue to denounce all such activities whenever, from the surrounding facts or from the entire course of conduct, it might appear that these activities involved, or were accompanied by, any such forbidden agreement or understanding.

Agreements and understandings need not necessarily be in writing, but may be oral or tacit or even unexpressed, and merely implied from surrounding facts or from an entire course of conduct. As a famous judge once said: "An agreement sometimes may be made simply by one man looking into another's eyes!"

With all this latitude in which to spell out agreements or understandings to limit production or to maintain prices, it is plain that surrounding facts and courses of conduct and all the circumstances that contribute to general appearances are just as important as good intentions and sound economics.

Extreme prudence, therefore, as well as good intentions and sound economics, will always be necessary in every trade association and in every co-operative activity wherever groups of business men act together and the opportunity and the temptation for any such forbidden agreement and understanding can by any possibility exist or be inferred.

ROUND TABLE CONFERENCES

ECONOMIC THEORY

G. A. KLEENE, *Chairman*

The topic discussed was the "Theory of Wages." The selection of this topic rather than the more logical one of the entire theory of value and distribution was due to the desire to elicit ideas from those interested in the study of concrete labor problems. The leaders of the conference were R. S. Meriam, S. H. Slichter, Herbert Feis, R. T. Bye, A. B. Wolfe, and the chairman. Summaries of the principal speeches are given below. A prolonged general discussion followed in which the prevailing attitude was one of scepticism towards the received theories of distribution. Near the close of the round table, some remarks made by Professor J. M. Shortliffe, led to a lively discussion of the difficulties of teaching the theory of distribution to the undergraduate.

RICHARD S. MERIAM.—The old theory of wages as part of the general theory of distribution needs to be supplemented, not destroyed. We should press on and deal with the theory of particular cases, more immediate effects, and dynamic conditions. Such wage theory will be more realistic, and eventually help the general theory, not by making it less abstract, but in making us more conscious of the abstractions we make and more confident that we have kept in the more important conditions.

One destructive criticism: the doctrine of noncompeting groups is bad realism. The facts, as revealed in income tax returns and in the wage rates of many trades combined, do not support the assertion that there are a few distinct groups, between which there is little competition and within which all the differences tend to disappear. This is also indicated by the attitude of American trade unionists toward the restriction of immigration. The essential fact of the noncompeting group idea is that there are environmental checks to the upward movement of talent. Even if this were not so, the fact of differences in inborn-ability would frustrate any attempt to maintain a labor-cost theory of value.

The combined study of labor problems and economic theory would help students of labor problems tremendously. Some of the realist critics of the general theories of wages appear to believe that the gain would be entirely on the side of theory. But an examination of standard works on labor problems will give innumerable illustrations of errors due to undisciplined thinking. The marginal laborer of the doctrine is identified with the poorest workman who is the last to be hired, and the conclusion is drawn that unless unionism displaces free competition all wages will go down to the subsistence level. Another familiar doctrine is that a nation would be better off if it destroyed the subsidized, parasitic trades which do not pay a living wage. The argument is based on a false analogy with the argument against protection. The real argument against protection is that it diverts the factors of production into less productive channels; a subsidy to a wage-earner does not usually determine into which occupation he or she will go. Another familiar assertion is that there is always unemployment-

ment and that therefore wages drop to the subsistence level unless unionism intervenes. This is connected with the reserve-of-labor doctrine which starts out with the assertion that there are always more men than jobs and ends up with a plea for labor exchanges to move men to places where there are jobs but no men. There is fully as much danger of bad thinking and wasted effort in realism as in dialectic.

Here are a few suggestions of problems whose solution would aid the study of theory and of labor problems alike. We have no satisfactory theory of collective bargaining. The usual theory is that individual bargaining is disadvantageous to the wage-earners. But it does not follow that collective bargaining is better. It is also not enough to say that in union there is strength, for there are the costs of organized effort and the fact that both sides are organized. There is also the question whether workers' control would affect the proportions in which the factors of production are combined. In discussions of factorial distribution, it is usually assumed that the factors will be combined in the same way however they may be owned or controlled. But a man who could get only 5.5 per cent interest on an investment in his own business and could get 6 per cent elsewhere would invest in his own business if his gain in profits offset the loss in pure interest. Similarly wage-earners' control would work for a combination which used a relatively large amount of labor and a relatively small amount of capital. This might be offset by the economies of increasing returns or decreasing cost. This "empty box" is thus of considerable practical importance. Also, we should continue the studies of the adjustment of wage disputes which Mr. Feis has already carried so far. If one industry is peculiarly prosperous, a larger proportion should go to labor if it is specialized and a larger proportion to capital if the industry is one of large overhead costs. If the increasing prosperity of the wage-earners continues, we shall have important problems of the quality of the working life as a check or encouragement to production. There is wide divergence of opinion about the prospects of wages. Some writers on population are very pessimistic and some writers on credit and consuming power are very optimistic about the prospects of increasing physical productivity. Attention should be called to the significance of the recent decline in the rate of interest in its bearing on the rise in wages. Professor McCabe argued that bargaining power was more important than physical productivity in accounting for the rise in wages because wages have gone up in the building trades and coal mining. But these industries were also well-organized before the large increase took place. In particular trades, an increase in value productivity may cause a rise in wages without any increase in physical productivity. Physical productivity is offered as an explanation of a general rise in wages, not as the exclusive explanation of a rise in particular wages. Professor McCabe's error illustrates one of three distinctions which must be kept in mind if realistic studies are to improve our doctrines: these are the distinctions between (a) the particular and the general, (b) the immediate and the eventual, and (c) the historical trend or sequence, the resultant of many factors, and an economic tendency, the direction of influence of one factor.

SUMNER H. SLICHTER.—The marginal productivity theory of wages fails to do what it purports to do; that is, explain the level of real wages. This

follows from the fact that, by "productivity," the theory means, not direct or indirect contribution to the satisfaction of consumers' wants, but contribution to the money income of business enterprises. Because labor may contribute to the profits of business establishments by doing things which decrease instead of increase the supply of consumers' goods, or which decrease the wages of other workers, it is not necessarily true that wages vary with labor's marginal productivity. Depending upon circumstances, a change in labor's marginal productivity may result in a like or an opposite change in real wages.

A second criticism of the marginal productivity theory relates to its assumption that under competitive conditions it pays employers to bid up the price of labor until money wages approximate labor's marginal product. There are serious managerial difficulties in paying new men more than old ones who do substantially the same work. Because of these difficulties, whenever for any reason the marginal worth of a force exceeds the wage rate, the employer cannot bid up the price of labor in order to attract additional men without either raising the wages of his old employees or risking serious labor trouble. Rather than advance the wages of his entire force, it may pay him not to expand it.

Several important consequences follow from the fact that it is not necessarily profitable for employers to bid wages up to labor's marginal product. Social resources fail to be utilized with the greatest effectiveness because men remain unemployed who are willing to work for less than they would add to product. Because of the discrepancy between money wages and labor's marginal worth, it can be shown that, contrary to the usual assumption, minimum wage laws may sometimes decrease rather than increase unemployment.

RAYMOND T. BYE.—I have not had the opportunity to read Professor Slichter's paper, but from hearing his presentation just now it appears to me that he has fallen into two errors. In the first place, most of the points he raises, in regard to which he finds the marginal productivity theory unsatisfactory, have to do with short-period phenomena; but the force of marginal productivity operates only in the long run. In the second place, it appears to me that he confuses conditions operative inside the individual business with conditions effective in industry as a whole. When, therefore, he presents a table designed to show that it would pay an employer better to keep what men he has at low wages, rather than take on a few more at a higher rate, which would force him to raise the wages of those already employed, he ignores the fact that competition in the labor market may force him to raise his wages. If there are laborers available who are worth more than they are getting, someone will offer it to them, and wages in general will rise. Our employer does not control it. He will, after such a rise, find it advantageous to increase his force until the marginal product equals the wage, as the theory states.

From this criticism of Professor Slichter it will be apparent that, like Professor Meriam, I do not believe we can make progress in economic theory by throwing away what theory we already have. The way of advancement is by evolution, rather than revolution; we should build upon the foundations which have already been laid. I do not mean that the wage theory now generally held is entirely adequate. In fact, it is one of the

least satisfactory parts of economic doctrine. It does, however, enumerate fairly well what are the factors which are operative in determining wage rates in industry. What we now need is more precise knowledge of the relative importance of these factors, and just how they operate in the labor market. The present theory is qualitative, rather than quantitative. It follows that further advancement is to be sought, for the present, by inductive rather than deductive analysis. Let us consider some promising lines of approach to this problem.

One difficulty with accepted wage analysis is that it proceeds as if there was only one rate of wages to be explained. Actually, however, there is no such thing as a general rate of wages. There are as many wage rates as there are occupations, and our theory must account for all of them. There are doubtless general principles affecting all wages, but there is no general rate. We will make progress, therefore, if we give up the attempt to explain what fixes such a mythical rate, and seek to find a *set of principles* which will explain *specific rates of wages* in particular occupations.

The marginal productivity theory is an attempt to explain the demand for labor. It will suffice to account for particular wage rates only if we assume that every type of labor in every conceivable occupation has its own marginal product which can be separately found and evaluated. But this assumption is valid only if the proportions in which each kind of labor is combined with the other kinds, and with capital and land, can be freely varied by employers. It rests upon the belief that, if the wages of a group of laborers rise, it is open to the employer to substitute for them workers of another type, or machinery; and, on the other hand, that if wages fall, he can increase the relative number of men of that kind that he employs, and get along with less of some other men, or of machinery. In short, the theory is of universal validity only if the demand for labor is very elastic, and the power of substitution among the factors of production is very great. But these conditions are surely not always realized. The technique of industry is confronted with certain arbitrary limits set by the existing arts of engineering, physics, and chemistry, and is in many cases of very little flexibility. In a given branch of manufactures, the types of plant and machinery made available by current knowledge and practices may call for definite numbers of this or that type of labor in more or less rigidly fixed combinations with machinery. The demand is in this case inelastic, and the marginal productivity formula is then inapplicable. In his "Theory of Social Economy," Professor Cassel has worked out a theory of wages which allows for either a variable or fixed demand for labor, but the treatment is so abstract that it is little, if any, improvement over the productivity doctrine. Is it not possible that a more satisfactory approach to this problem could be made inductively? We need some concrete studies which will show the exact nature of the demand for different kinds of labor in different industries. We ought to know what types of labor are required, and how elastic are the proportions in which they can be utilized. Some investigations along this line should prove exceedingly fruitful, and would afford a basis on which a satisfactory theory of the demand for labor in the fixing of particular wage rates could be based.

If we turn to the supply side of current wage theory, we shall find that while it is good so far as it goes, it also leaves room for improvement. A number of factors are admitted into the usual explanation. The supply of

labor is supposed to be governed by the pressure of population in the Malthusian sense, the checks to this pressure arising out of the effort to maintain established standards of living, and the attractiveness or disagreeableness, including the difficulty and expense of training, of the different occupations. A certain amount of inelasticity in the supply of workers available for a given trade is accounted for by the doctrine of noncompeting groups. All of these factors are undoubtedly operative, and can be used as a foundation for further work in developing the supply side of wage theory. What we need here is more precise knowledge about the influence of these factors.

Do we have as yet any satisfactory classification of types of labor? We hear much about the stratification of the population into noncompeting groups, but we do not know, except in the roughest sort of way, what the groups are. It is not enough to divide the people into four or five broad classes; we ought to have an accurate classification of our industrial population. A few years ago we did not have the basis for such a grouping. Perhaps we do not have it yet; but there is much material available. The psychological tests of intelligence and the personnel work that is now being done in industry, will soon make possible, if they do not already do so, a scientific classification of the types of labor. This will be an important contribution to a practicable theory of wages.

We need also more information about the relation between population growth and standards of living. We can *suppose* that each stratum of the people controls its rate of reproduction so that the rate of wages it receives is adjusted roughly to the cost of maintaining its customary standard; but we have no *assurance* that such is the case. It is entirely possible that the rate of increase among different labor groups is such as to raise steadily the remuneration of some relatively to the others. It would be interesting, therefore, to analyze the population growth among different economic classes and compare it with relative real wages to determine what, if any, relationship there is between them. Only information of this precise, quantitative sort will suffice for a workable, usable theory of particular rates of wages.

The mobility of labor is an important factor in the supply side of the wage analysis. It occupies a position analogous to that of the principle of substitution in the demand analysis. The latter affects the elasticity of the demand for particular kinds of labor; the former affects the elasticity of the supply. Classical theory assumed perfect elasticity in the supply of labor both for particular occupations and for labor as a whole. Modern writers, accepting the doctrine of noncompeting groups, the fact of birth control, and the existence of barriers set by custom, tend to the view that the supply in both cases is somewhat inelastic. Some elasticity, however, is assumed to exist between occupations, between different labor markets, and for population as a whole. We cannot be said as yet, however, to have any precise knowledge about it. Just how great is the mobility of labor, and what are the conditions that affect it? An answer to these questions, which can only be given with precision by inductive investigation, will be of considerable significance for wage theory.

Along with this further analysis of elasticities of supply in the labor market, it would be interesting to inquire into the factors affecting the training of labor, and the response of skilled and highly trained labor to

the demand for it. Does the supply of plasterers increase when wages rise for this type of labor; if so, how, and if not, why not? What part do trade unions play in this matter of training and apprenticeship, and how do they affect the whole process of the response of labor to the demand for it? Do they increase, or reduce, its elasticity?

Finally, I would like to suggest that we should pay more attention to the short-period equilibrium in the labor market. Marshall showed us that the distinction between short- and long-period prices was of great importance for the theory of value. It is even more so for the theory of wages. Current wage theory, however, is for the most part concerned with the long-run equilibrium. The influence of marginal productivity, of standards of living, and of population growth—how quickly do these things operate? Clearly, they are principally effective only when a considerable time has elapsed to allow their influence to be worked out. But most practical wage problems are immediate. They deal with things of the short run. Is there not a normal short-period wage, analogous to Marshall's short-period equilibrium price, which is effective temporarily while the slower adjustments of the labor market are being worked out? A theory of wages which gives an adequate account of this temporary equilibrium would be of practical value.

G. A. KLEENE.—The most generally held or, at least, the most ably supported theories of value and distribution describe an ideal system of prices based on the marginal utilities of consumable products and of the factors used in their production. It is *ideal* not only in the sense of being an abstraction, but also as indicating the most desirable prices of goods and productive services. Taking for granted the existence of private property in the material instruments of production and also the demand schedules for the various consumers' goods, such as these schedules are—admittedly not in perfect conformity to our ideals—the system distributes the existing stock of productive powers among their possible employments in such a manner as to secure the maximum total product. Each productive factor is regarded as divisible into small units, usable in combination with different proportionate quantities of other factors, and subject to a law of diminishing productivity. On these assumptions it becomes possible to think of the entire stock as finding employment and so apportioned between its possible uses as to achieve everywhere the same marginal value product per unit.

Now if this is a valid description of the equilibrium of prices toward which things tend and should tend, our attitude towards the various wage policies, tried or proposed, is determined. The price of each kind of labor must be made to conform to its marginal productivity. No policy in conflict with this principle could stand. At least as long as we are committed to the system of private property in instruments of production and of private control of industry, marginal value remains fundamental to the determination of wages.

But there are difficulties in applying the theory as either a regulative or a descriptive principle to actual practices and policies. These difficulties are, moreover, not due entirely to the hypothetical conditions on which the theory as a "first approximation," is based. Such hypotheses as the stability of the general level of prices, static conditions with reference to the tastes of consumers, the relative quantities of different agents of pro-

duction and the technique of production, the assumption of the complete employment of all agents, the complete mobility of all factors, the absence of blundering, etc., do indeed create obstacles to the complete realization of the situation described by pure theory. But if these were the only obstacles, the theory could stand as an account of actual long-run tendencies. There is a more fundamental difficulty. Embodied in the theory, is the expansion of the old law of diminishing returns into a general law of variable proportions between all the different factors. This general law is in conflict with the facts. There is indeed a law of diminishing returns from land for combinations of the other factors. But between these other factors the principle of fixed proportion comes near to being a universal rule. Adding a unit of any of these factors to a combination established by technical necessities adds nothing to product. Now if this is true, there is no advantage in employing additional units unless accompanied by other factors. How for instance could an additional laborer increase output, without at least using some more material? A separable, marginal contribution for the units of any of these factors cannot be established.

That a theory in conflict with these facts found such ready acceptance may be explained by the fascination of the rationality of the system of prices, which the general law of variable proportion would make possible. Indeed the law has been declared the essential condition of rational economic activity. If, however, it does not hold, we are confronted with the necessity of reconstructing the theory of value and distribution. The general theory of valuation based consistently on the marginal principle and unified by it must be given up.

A. B. WOLFE.—I think that it is better not to accept any wage theory at all than to accept one which is not reasonably true to the real facts and forces which determine distribution of income today. I cannot, therefore, fully agree with Professor Bye that we should take the existing theories of general wages as a foundation and attempt to build thereon a refined edifice of theory with regard to specific wage rates. Neither Professor Meriam nor Professor Bye indicate clearly which of the general wage theories hitherto in repute is to be accepted as foundation for detailed construction, though Professor Meriam evidently, like myself, is unable to put himself in a very receptive state of mind toward any of them.

Alfred Marshall, in his *Industry and Trade*, remarks that nowadays we know vastly more about economics than the classical writers did, but that the more we extend the horizon of our knowledge the more aware we are of vast areas beyond, of which we are ignorant. Some such thought, it seems to me, is pertinent to a discussion of wage theories. All the old theories doubtless contain important elements of truth, at least if we keep in mind the (sometimes unexpressed) postulates and assumptions on which they were developed. But it impresses me that we know too much about the actual working of our economic system to take any of the established theories very seriously. Even our consciousness of ignorance as to many aspects of the economic process should make us, I believe, wary in accepting any theory developed, as past theories have been, in the main by philosophical deduction.

I am not unmindful of Professor Taussig's wise caution, in the second volume of his *Principles*, that a theory of general wages ought not to be

rejected because it seems recondite and far removed from immediate issues and surface phenomena. Failure to sense this fact is responsible for Mr. Frey's disappointment in what has been said at this round table. The economic theorist, rightly or wrongly, has been, up to the present at least, interested in just those deep-seated, "long run," (if not "universal"), forces which, underneath the immediate issues of wage bargaining, fix, however elastically, the upper and lower limits within which the terms of the bargain must probably be found. Both Mr. Frey and Mr. Leiserson are necessarily interested professionally in more immediate factors. But I do not think that they should despair of ever getting any light from the theorist. For the theorists, if given time, will possibly learn enough about the facts of wages, interest, and profits, trade agreements, the circuit flow of money, and the springs of business activity, to be able to offer something worth while to the attention of the trade unionist, the employers' association, and the impartial arbitrator.

I confess I have no wage theory myself. Our chairman has confessed that the quota law has rather crippled his neo-wages-fund formulation. I cannot accept the specific productivity theory because it is based on the assumption of free competition and perfect fluidity, because even under these unreal assumptions it does little more than state the problem, and because, as Professor Kleene, Professor Cassel, and others have pointed out, it is beset by logical difficulties. I cannot accept the discounted marginal productivity theory of wages because it assumes sacrifice in a broad zone of marginal savings, and hence a theory of interest which statistics and psychology seem to me to demonstrate to be untenable. I cannot accept in full any theory based on the assumption of free competition or on the idea that production takes time. Nor do I at present see that any theory of real wages which does not make full examination of the circuit flow of money and of the ebb and flow of the business cycle can be other than fundamentally unreal and artificial. I can only wonder whether any theory has got closer to the facts than the bargain theory may, if worked out in proper relation to the technological facts, the existence and the modifiability of customary norms or ideals of "propriety" in reward, and the circuit flow of money. The theory of wages for a dynamic society will not be simple; nor can we attempt a theory of wages without at the same time attempting a theory of distribution as a whole.

JOHN P. FREY.—In discussing the subject before this meeting, let me confess that for the past thirty years most of my time has been applied to the subject of wages. As a trade-union official I have endeavored to convince employers that those I represented were entitled to higher wages, and, with equal energy, I have endeavored to convince employers that wages should not be reduced.

The facility and felicity which has been shown this afternoon in criticising wage theories has encouraged me to speak plainly. I came here to learn something about wage theories. After listening to the discussion I practical methods of trade-unions.

The thoughts and opinions which have been expressed concerning a wage theory forcibly remind me of what might occur if some outlanders

were delegated to make an investigation of Christianity, discover what it really was, and how it functioned. Some investigators would be absorbed in discovering and studying the theory of Christianity. They would carefully read the works of all the authorities. They would follow the offshoots of theory which have been developed by different Christian denominations. They would confine themselves to the theory. Others, of perhaps a more practical mind, would endeavor to discover how those who profess Christianity conducted themselves, and how the great nations professing Christianity conducted their internal and external relations. The result of such an investigation would show a very wide difference between the theory and the practice.

I have listened most carefully to the discussion of a wage theory by those who are in authority. Apparently there is no wage theory which has any sound standing. No sooner has a wage theory been propounded than other economists discover that it is unreliable and unsatisfactory. The probability is that there has been too much consideration of theory and not enough energy given to the accumulation of facts.

While I was working at my trade of iron molding, and beginning to take an active part in the affairs of my local union, one of the foundry-men I came in contact with gave me a book on economics and urged me to read it. He was quite confident that after I had read this book, I would no longer hold some of the convictions which led me to work along trade union lines, in an effort to secure a larger measure of industrial justice for my fellow trade-unionists.

This book contained the economic theories relative to wages which had been advanced by Adam Smith, Ricardo, Malthus, and Mill. It discussed the law of supply and demand, the theory of a wage fund, and the iron law of wages. So far as the contents of this work on economics went it seemed to prove that the collective action on the part of wage earners to secure higher wages and shorter hours of labor was doomed to failure, for certain economic laws made it impossible for them to succeed, and made it equally impossible for the employers, if they were to stay in business, to advance the wages and shorten the hours of labor.

I am very glad that trade-unionists did not permit the wage theories of the classical economists to dampen their ardor, or stay their progress. I have lived to see a great change take place. The ten hour day has been superseded by eight hours. The real wage has been advanced, and there is ample evidence that it should have been advanced much more than it has. In fact, I am probably fully justified in saying that the welfare of our industries themselves demands that there should be a material advance in the real wage.

Principally because of what the trade-union movement has been able to accomplish in improving the terms of employment and conditions of labor, economists have been compelled to modify or abandon previous wage theories. This is evident from the discussion this afternoon, for, apparently, economists are largely at sea as to a sound theory of wages.

There is no generally accepted theory of wages. There is none which

stands the test. Workmen do not flow in a steady stream from the low to the high wage sections of the country, with wages the only factor in their migration. There are many reasons for this. As an illustration of this fact, the low-paid cotton mill operatives of the Southern cotton mills have not migrated to the cotton mill districts of the North. Workmen are governed by other considerations than wages. Many of them desire to live in the communities in which they were born and in which their friends and families are located. And so we have a condition where in large industrial cities, separated by less than a day's journey, there exists a difference of 15 and 20 per cent in the wages being paid.

I gathered the impression, from listening to the discussion, that wages and the cost of material were rather definite factors in the cost of production: so much being paid for material; so much for wages, the result being the cost, as though the wages paid to labor provided an invariable amount of production, in the same manner that so many pounds of material provided a definite quantity to production.

There can be no greater fallacy than the thought that the rate of wages paid is the definite gauge by which to measure the cost of production. Some of the employers whose policy is to pay the lowest wage possible make money, but many employers who carry out this policy are unable to meet the competition of competitors, and eventually see their property pass under the auctioneer's hammer, while their competitors who pay higher wages prosper and flourish.

As a matter of fact, high wage rates, the highest paid in an industry, may also mean the lowest production cost, for a skilled mechanic receiving ten dollars per day may produce more value through his skill and labor than would be contributed by three or more lesser skilled men working for five dollars per day each. No greater mistake could be made by economists than to measure the labor cost of production by the wage rates being paid.

In addition to the skill and manual dexterity which mechanics possess, there are other important factors: the relationship and degree of good will existing between workmen, and the attitude of the wage earners toward their employer and interest in his welfare, or their total indifference, depending upon the labor policy which the employer pursues.

Ten years ago I sat in the office of a well-known industrial engineer in this city. He was employed by large industrial establishments and among his other responsibilities was the determination of the wage rate. I wanted to know what basis he had for determining the wage rate which he established for his clients. He informed me that there was but one sound method: to discover the general rate of wages paid in the community for the same type of labor. After discovering what this rate was he added slightly to it, with the assurance that the rate was economically sound for both employer and the employed.

I found that he was engaged at that time in determining the wage rate for a large industry in this city, and also for an employer in the same industry in a city not so far away where the wage rate was approximately 20 per cent less. He quite frankly informed me that he would apply

the same method of determining the wage rate in both cities. I asked him whether this method would not mean that the competitor of his New York client would be given a great advantage in the wage rate. I received no direct answer, but instead, the industrial engineer insisted upon calling attention to some of the other beneficial qualities of his system to both employer and employed.

I have endeavored to be frank in talking to you. With equal frankness let me now say that we should have the fullest measure of benefit possible from you. You are possessed of trained minds. You have made a life study of economics. The producers and consumers, the employers and the employed, should be able to profit from the results of your labors.

As you do not seem to have any theory of wages which can stand the test of your own criticisms, it seems to me that if upon this question of wages we could have less theory and more facts, it would be beneficial to every one. What we need is less theorizing and a much greater knowledge concerning the facts, and no one is as well equipped as you are to carry on the investigation and give us the information which is needed to guide the industrial manager and the wage-earner.

REDUCING COSTS OF MARKETING

FRED E. CLARK, *Chairman*

A. HEATH ONTHANK.—The Department of Commerce has been proceeding on the assumption that what is most needed in the field of marketing is knowledge. We need more knowledge of the costs of doing business, more knowledge of the best practices and methods to be pursued, and more knowledge of where to direct our best efforts to gain the greatest results for our expenditures.

Two and a half years ago Mr. Hoover set up in the Department of Commerce a Domestic Commerce Division for the purpose of paying some attention to and, if possible, finding some partial solutions for, our marketing difficulties. The work which is being done there is predicated upon Mr. Hoover's remark that a business man's judgment is no better than his business knowledge.

After considerable experimentation the work of the Division was grouped under four heads. This decision was based on an analysis of the inquiries relating to domestic marketing which were being received in the Department of Commerce. It may be said, therefore, that the work which is now going on is a direct answer to the questions which business has been asking of the Department.

The first task was to set up some organization which could answer the multitudinous questions coming in from business with some degree of satisfaction to the latter. These inquiries take two general forms: first, requests for trade lists and business opportunities; second, requests for help with many specific problems of individual businesses on which some research may be done toward a suggested solution. A great deal has been done along these two lines. But because of the limited appropriation of

the Department, the answering of inquiries must be a minor phase of the Division's work.

Following the decision to spread more information concerning proper methods of doing business among the trades, three series of studies were started. The first was aimed at the retail end and consisted of ten pamphlets outlining the best practices on a number of subjects of current importance, including a list of bulletins which will show you their timeliness and also will give you an idea of the benefit which they might well do among the small retailers. "Budgetary Control in Retail Store Management"; "Store Location"; "Measuring a Retail Market"; "Store Planning"; "Co-operative Advertising"; "The Education of a Sales Force"; "Department Leasing"; "Returned Merchandise"; "Installment Plan Sales"; and "The Traffic Problem as Affecting Store Patronage."

A second group of studies was started for the wholesaler. The first of these consists of a grocery jobbing atlas which attempts to delineate the normal or most efficient territories which can be covered from a number of primary and secondary grocery jobbing centers of the country. Similar jobbing atlases for other trades will eventually be produced if the funds are available.

Third, it was found that there was so much interest in the sales management angle, particularly for manufacturers, that it seemed desirable to start a series of bulletins on the various subjects in this field. The first one has been published—a short study of the elementals in planning salesmen's territories. Several other bulletins are planned to complete this series. A few titles will indicate the scope of this section of our work: sales quotas, salesmen's compensation, and education of salesmen.

It was not long after the formation of the Domestic Commerce Division before various trades saw an opportunity to procure for themselves information and advice on their markets within our national boundaries. Requests for aid in this direction started slowly but have been coming in recently in ever increasing volume. A start has been made in this direction, and it is our purpose to supplement the list from time to time as we find personnel and funds which can be applied. The first bulletin consisted of a statistical study of the markets for electrical merchandising lines in this country. A second study in this series, somewhat similar in scope and treatment, was made for paints and varnishes. A third study has been undertaken on the markets for enameled sanitary ware and plumbing supplies. Several more are planned for next year although no decision has been made yet as to what trades will be studied.

I have pointed out that little by little the trades will be covered by market analyses which look upon the nation as a group of markets for the one commodity considered. The fourth division of our work takes the reverse point of view by devoting itself to a study of the possibilities of certain regional markets for absorbing all goods. In this way there will eventually be a complete interlocking of trade and regional analyses. It is this fourth class of work which is taking most of our attention and

money and in which we believe our efforts should be of tremendous eventual value.

The United States as a market for any one or all commodities is not an entity. Instead it is composed of a large number of small markets, each one differing from the other and for that matter having differences within themselves. A knowledge of the makeup of these markets is essential for the most efficient marketing procedure and plans of our distributors, and yet it is something which up to this time has been almost entirely lacking except as individual houses have formed their own opinions which they have, of course, guarded carefully. Moreover, in any one market there are many factors other than the actual purchasing power of the inhabitants which should be included in plans for cultivation of or further concentration on a particular area. As an example, it is of small use to know that the incomes in a certain farm territory average \$2100 as against the United States average of \$1400 if the purchasing habits of the farmers are such that your own commodity does not fit into their lives. In other words, purchasing habits and purchasing inclinations (and there is a difference) are fully as important to know as the amount of income available to buy goods. This seems like an elementary statement and yet its significance is not appreciated by a large majority of our manufacturers and distributors. It became our purpose, then, to make available information of this sort which could be used as a guide to the intangible reactions of various groups of our population and, in addition, to furnish the statistical tools whereby a more exact measure of market possibilities could be obtained.

A start was made by an intensive study of the wholesale area surrounding Philadelphia. Soon after this work was started, a second study of similar import was commenced for Atlanta. This survey (which has now come to be known as the Southeastern Survey) will take in not merely the wholesale area of Atlanta; but will also include a study of five and one half states comprising the South Atlantic group in which Atlanta is but one of several large centers of population, distribution, and business activity. The Philadelphia Survey was primarily a statistical analysis backed up by a large amount of field work concerning the more intangible marketing data. The Southeastern Survey is predicated upon a thorough study of the underlying economic conditions in the South. Using these as a background and as a factor for interpretation, the statistical and informative sections are again included but with a meaning which is more far-reaching and which looks further into the future.

Based on this new type of regional market analysis twelve major economic sections have been carved out of the United States for future treatment. It is hoped that a start can be made before the end of this fiscal year on two if not three of these and that there will be enough appropriations for next year to carry the program well on towards completion. Within three more years at most, it is hoped that the country will be fully covered by market surveys.

The most important part of this program will come after the completion

of this work, for the surveys are not an end in themselves but merely a means to another result. Following the completion of each of the market surveys, a reporter corresponding to our Commercial Attaches in foreign countries will be left in the section to ascertain and report to Washington the changes in marketing methods, habits, and all other subjects which would be of interest to distributors who are active in that area. This information will naturally be disseminated to the public in some sort of a periodic publication. It will for the first time, I believe, afford sellers a class of information which is now entirely lacking concerning the domestic markets of the United States.

ALVIN E. DODD.—The program of the United States Chamber of Commerce toward reducing the cost of marketing is largely summed up in the action of the National Distribution Conference which is to a large extent the cumulation of the four years of study and work of the Domestic Distribution Department of the Chamber of Commerce of the United States.

One of the difficulties faced immediately in an analysis of distribution is the attempt to visualize it. It is not a thing like a railroad train—but an act. It is not a wholesale warehouse; it is not a wholesaler nor the merchandise stored in that warehouse, nor the consumer who buys the merchandise—nor is it a combination of all of these. It is a series of acts. It is the process through which merchandise passes from the original sources to its final uses. And it must not be forgotten that the origins of distribution are buried deep in human nature. Its growth is measured by thousands of years and it is difficult, if not impossible, to alter the effects of this growth materially without destroying it.

Distribution is misunderstood, not only by the public at large, but often by distributors themselves. The consumer very often does not take into consideration the multitude of processes which are necessary to convert a raw material into a finished product and place it in his hands. A bushel of wheat sells for only a trifling part of the cost of bread of which wheat is the chief ingredient. A ton of steel when converted into pocket knives is accomplished by an enormous margin.

Until the figures relating to distribution expenses are better known both by distributors and the general public it will be impossible to correct these misunderstandings and a part of the work conducted by the Conference will lead to a better understanding of most of the distribution expense as it is today.

The National Distribution Conference, recently held at Washington, is regarded as the commencement of a great program by the distributors of the United States to engage in a study of their problems, not only for their own immediate benefit but for the ultimate beneficial effect upon the public at large.

The Conference was initiated to examine the processes of distribution and the conditions vitally affecting them. The general purposes may be stated as being: 1. To bring better understanding; 2. To attain higher

efficiency; 3. To reduce obvious wastes; 4. To abate unwarranted criticism due to misconceptions.

The first session in January, 1925, was devoted to a discussion of six general subjects which were brought before the Conference for its consideration. As a result six committees were set up as follows: Committee I, Collection of Business Figures as a Means Toward Accomplishing Economies in Distribution; Committee II, Trade Relations; Committee III, Market Analysis, Advertising, and Advertising Mediums; Committee IV, Expense of Doing Business; Committee V, Methods of Distribution; and Committee VI, General Conditions Affecting Distribution.

The second meeting of the Conference was held in Washington, December 15 and 16, at which time the reports of the six committees were presented and adopted by the Conference practically as formulated by the several committees.

With the problems of distribution defined in committee reports and their various aspects carefully analyzed, the Conference adopted 23 resolutions which are the foundation upon which improved methods and future studies of distribution may be built. Among the resolutions are some which recommend extension of activities of other organizations at present engaged in the preparation of statistics and other data of interest to distributors. Among the resolutions, also, are concise statements of fundamental principles vital to a clearer understanding of the problems of distribution.

Within the Chamber of Commerce of the United States we feel our studies and policies in the Domestic Distribution Department will be dictated to a large degree in the future by the action of the Conference which I have just outlined.

Some of these are:

1. The establishment in the Chamber of a permanent committee on the collection and publication of commercial statistics which shall conduct a thorough study of statistics on distribution and marketing, classified by source, by commodity, and by character.
2. Press forward for legislation to provide appropriations for enabling the Bureau of Census to conduct an enumeration of distributors of various classes, and as soon as practicable, a census of distribution comparable with the biennial census of manufacturers, the value of which is recognized generally, and in this census of distribution to secure volume figures as well as values.
3. To secure an extension of the work by trade associations of the collection of data on distribution and to secure editorial discussion by business journals of the need for basic statistics and how they may be used.
4. To define codes of ethics in terms of practices both good and bad, and to adopt means to uphold and to make more effective these principles of business conduct.
5. To secure the setting up of a joint trade relations committee, representative of manufacturers, wholesalers, retailers, and the con-

suming public, to act as a clearing house for complaints of objectional and destructive practices, and to promote such co-ordination as will effect economies and improve mutual relations.

6. To study further the wastes in advertising and to secure the marketing information necessary as a basis for effective advertising.
7. In order to facilitate the interpretation of charts and diagrams in connection with market studies, to secure the wide spread adoption of the plan of "Standard Colors, Hatchings and Ben Day Stipples," approved by the Conference.
8. To discourage the expansion of unnecessary distribution services through the education of the consumers on the costs of those services.
9. To campaign the trade and commercial organizations for a more widespread adoption of uniform classification of accounts.
10. To work for unification, simplification, and uniformity of weights and measures in the various states and throughout the United States.
11. To secure the spread of information on the processes of distribution.
12. To secure the co-operation of distributors in the effort of the American Bar Association and the National Conference of Commissioners on Uniform State Laws in advancing uniformity and model state legislation effecting distribution and marketing.
13. To study installment selling as to: (a) The effect upon the general credit structure as well as the cost and the safest methods of financing installment sales; (b) The approximate extent to which the installment buying public is committed to future installment payments in relation to its current income; (c) The probable effect on the consuming public and business of further extension of installment selling.

PAUL H. NYSTROM.—Efforts to reduce the costs of distribution in the retail field have followed four general lines, viz.:

1. Attempts to reduce expenses by more efficient operation.
2. Changing ownership of retail stores from private to co-operative.
3. Changing from independently owned retail stores to chain stores, mail order houses, and other newer types of retail institutions.
4. Organizing retailing for co-operative purchasing direct from producers.

The attempt to reduce expenses in retail stores by more efficient operation has been going on for many years. This effort has been widespread and even systematic, particularly since 1911. Three events which occurred in that year stimulated this movement to a marked extent. First, public interest was aroused to a high pitch in the application of scientific management by the report of Justice Brandeis on the "Significance of Scientific Management" in a hearing before the Interstate Commerce Commission in January, 1911. Under the impetus of this movement effort was made to secure greater efficiency not only in manufacturing but in distribution and particularly retailing as well. Secondly, price maintenance by contract was made illegal by Supreme Court decision, generally known as the

Miles Medical Company vs. John D. Park & Sons case, with the result that manufacturers turned a great deal of effort into propaganda to retailers to study their costs, in the hope that such study would help to stop indiscriminate price cutting, and to secure the results to themselves formerly gained under price maintenance. Finally, the Harvard Bureau of Business Research began in the summer of 1911 its field studies on the costs of retailing shoes and has followed this up since by many other studies on retailing costs.

During the last fourteen years there has been a great deal of interest in better accounting and more efficient management in the retail field, but in spite of all of the effort given to this problem, the costs of retailing in 1925 are higher than they were in 1911, or at any other time in the past, and the present tendency is apparently upwards. So far, all attempts to cut costs have failed. Probably, however, the costs would have been still higher in 1925 than they were had there been no such study made.

However, it does not appear, from any material now available on the costs of retailing, that important reductions can be hoped for in the future. Nearly 60 per cent of the total expense of a retail store is due to wages, and any change in the wage rate of retail employees is almost certain to be upward. By means of more intensive educational work, it may be possible to increase the efficiency of retail employees, but it is more than likely that the wage rate will keep pace fully with any such improvements.

However, a definite improvement in efficiency, even if unaccompanied by a decrease in the percentage of wages to sales, might still have the effect of cutting the total retail costs by reducing the overhead expenses. The fixed items of overhead, such as rent, light, heat, taxes, insurance, and general administration amount to from 7 per cent to 10 per cent of sales in most retail stores. An increase of from 10 per cent to 20 per cent in labor efficiency might, therefore, result in a decrease of 10 per cent to 20 per cent in the overhead, which in turn would amount to from 1 per cent to 2 per cent of the sales. That is, an increase in efficiency of retail employees of as much as 20 per cent would make possible a saving of only two cents on the dollar of retail sales.

This, in itself, even if deducted from the price of goods, would not be considered a very great contribution to the problem of cutting distribution expense. There are, of course, many other opportunities in a retail store to effect savings and increase efficiency, but when the best efforts are applied and the results are all in, the amount of savings which can be effected and turned into net profits or into reductions in retail prices, generally speaking, can hardly exceed 4 per cent to 5 per cent. A general increase in retail efficiency, resulting in as much as a 2 per cent decrease in the cost of doing business, should be considered a great step forward. Yet this is not what most people have in mind when they talk or write about the possibilities of cutting down the costs of distribution.

Changing ownership of retail stores from private to co-operative has, at various times, been urged as an important means of eliminating some of the costs of distribution. Essentially, however, merely changing the

ownership without changing the service, merely results in deflecting retail net profits, such as they are, from private owners to co-operative owners. Co-operative organizations have generally tried to reduce the amount of services usually rendered by private concerns, when making their sales to their own members. Wherever the service is reduced, naturally some saving can be effected, but this saving is not to be credited to the principle of co-operation, but rather to retail business policy. A co-operative store, no matter what its service, can scarcely be operated for less expense than a privately owned store, offering the same service.

There is nothing in the experience with co-operative stores so far that indicates that they offer any solution to the problem of cutting the expenses of distribution.

Changing from individually-owned retail stores to chain stores, mail order houses, and other types of retail institutions is a method that has suggested the possibility of lower distribution expenses to a great many people. It has been felt that out of the variety of types of retail stores in existence, some would surely emerge as being more efficient than others.

Exact facts on this subject are exceedingly scarce, but so far as information is available on the actual costs of distribution in chain stores, mail order houses, and others of the newer kinds of retail institutions, there appears to be no certain and permanent advantage in these types of retail institutions in terms of expense.

There is a wide difference in the kinds of services rendered the public by these various institutions and their expenses seem to vary as their services, and when these differences in service have been given due regard, the costs of distribution appear to approximate each other very closely.

There are other differences in the costs of doing business, not due to differences in services, but clearly due to differences in the ability of their individual managers. Such differences in managing ability are to be found not only between competing types of institutions, but also within each group or type. Good managing ability is successful in keeping expense 2 per cent to 4 per cent below the average, no matter what the type of service given, with the result that the institution served by such a manager makes from 2 per cent to 4 per cent net profit than the average. As long as there are human differences there will, in all likelihood, be these differences in the results of management.

Other factors enter into the costs of distribution of individual concerns, but these need not be given consideration here. The general fact seems to be that differences in costs of selling among the various types of retail institutions are due, very largely, to differences in service rendered.

The fourth line effort to cut the costs of distribution, by organizing retailing for co-operative purchasing, is a recent development. Chain stores have probably made no fundamental contributions in the direction of cutting costs of retailing (at least no contribution not generally applicable to other types of institutions) but they have, in a large way, indicated that by purchasing direct from producers in large quantities, important price advantages can be secured. It is asserted by many re-

tailers, that in most cases in which chain stores have been able to undersell independent stores, this has been due to the fact that they have been able to purchase their goods for less than the independents. By combining the orders for merchandise from the several units of their organization, they have been able to place requirements for enormous quantities with manufacturers, who in turn have been able to make reductions in their regular prices, because of savings in their selling and overhead expenses.

Independent stores, competing with chain institutions, have come to recognize that they are at a decided disadvantage in the buying markets. The obvious result has been a strong tendency among all classes of independent retailers to organize co-operatively for the purpose of making quantity purchases. In view of the present very rapid growth of chain store systems, it may be anticipated that there will continue to be a very rapid development of co-operative buying among independent retailers.

Co-operative retail buying organizations, when properly organized and operated, will probably buy at just as low prices as chain stores and mail order houses and these institutions certainly buy as cheaply as do wholesalers and jobbers in the majority of cases. In going direct to manufacturers, retailers' co-operatives are really taking on some of the functions of wholesalers, and at the same time absorbing the wholesalers' margin. However, in doing this, the wholesalers' expense, or at least part of it, is also incurred so that the absorption of the wholesalers' margin does not mean an equal increase in net profit or a possible decrease in selling price. It does appear, however, that co-operative purchasing by retailers can secure, on certain classes of goods, and under certain conditions, at least the net profit margin of the wholesalers, and in addition, some savings of the wholesalers' overhead and sales expense. It is hard to say how much this saving will amount to. In the long run, independent retailers may, by co-operative buying, be able to save an additional 2 per cent or 3 per cent through this means, either in the form of net profit or to be applied in lower prices to the public, whichever competition dictates.

C. E. GRIFFIN.—Closely analogous to the problem of forecasting is another type of market study to which little attention has been given by economists and statisticians in academic work. While the problem of forecasting is concerned with changes in market conditions from time to time, this other type of study is concerned with differences between markets at a given time. The problem is that of measuring relative market potentialities by market areas or by economic or social groups. A sales manager desires to know the relative potential values to him of Ohio and Michigan or of the Southwest and New England. There are a number of reasons why he should want to know these things. First, there is the problem of where to put forth the greatest sales efforts. For example, here is a company aiming at national distribution of its products. It depends upon wholesale branches for its aggressive sales efforts. It has capital available for establishing a few new branches. Shall it place them in the South, which to date has yielded but small results, or in the North

Central area where sales have been larger? Perhaps the sales in the South are as good as could be expected in view of the potential market existing there. Possibly the North Central states in spite of their large volume of sales have not been worked as intensively as they deserve in view of the possibilities existing there. It is not enough to know that the North Central States constitute a better market than the South. One should know how much better. Or again a company which has developed only a certain block of states wishes to expand. Shall its efforts be put forth in the district it has already covered or shall it go into new districts. That is, shall it cultivate intensively or extensively. The problem is analogous to that of a farmer who has a fair amount of capital and 160 acres of land of varying quality. He might distribute his time, his labor, and his capital over the several grades of land in exactly equal proportions, spending as much per acre on the poor land as on the good land. A good farmer, whether or not he be familiar with the economists' concept of diminishing returns, would probably condemn such a policy as poor farming—and rightly so. Again our farmer might select his best piece of land for intensive cultivation, devoting all his capital and labor to that piece and permitting the remainder to lie idle. That program would be as uneconomical as the first. What he should do is to distribute his capital and labor over the land in such proportions as will yield the largest amount of product obtainable with the productive factors at his command and this result is most likely to be attained when the best land is worked most intensively, the next grade less intensively, and so on down the scale. The poorest land will receive relatively little attention; possibly it may be best to let it lie idle. To attain the desired end, therefore, it would be necessary for him to know his land. Sufficiently accurate knowledge for practical purposes probably can be obtained by general observation, but that such knowledge must be attained by one means or another seems clear. When now our farmer becomes a general sales manager and the farm becomes the United States or perhaps the world, the same data are needed and for the same reasons, but it can no longer be obtained by a general appraisal of the situation. Here then is one of the important problems of market analysis: to provide information concerning market potentialities which general observation fails to yield because of the size and complexity of the problem. I do not mean to suggest that data can be dumped into one end of an automatic machine and a wise business policy obtained, ready made, at the other, for there are a number of other factors such as the extent of competition and possibly the effect of distribution policies upon production, finance, and personnel which must be considered, but with all these an evaluation of the market is essential.

This form of market analysis seems to have a very direct relation to the problem of elimination of waste in distribution. There has been much criticism of late years directed against excessive selling efforts. My impression is that most students of business administration are inclined to put such criticisms aside as the products of uninformed idealists. However, both critics and defenders of the present business system would

agree on this, that, regardless of the amount of effort to be put forth in selling, that effort should be so distributed as to yield the largest results. It is a fact that in one of the important industries of the country there is relatively little agreement upon the question of where further efforts should properly be expended—in those districts which to date have yielded the largest harvests or in those districts where sales have been small. An answer to this question it seems would be facilitated by a valuation of these districts are potential markets for this particular product.

Another service of such measures of market possibilities is in the fixing of sales quotas for branches, for districts, or for individual salesmen. How can we tell whether or not a salesman is producing satisfactory results? Must we not have in addition to data on his actual performance some measure of the fertility of the field assigned to him? The doctrine that no district has been so highly developed that a good salesman cannot find new customers may have a certain basis in fact and it may have a certain inspirational value, but when one is arranging a system of compensation or of special rewards to stimulate sales efforts it needs to be supplemented by a recognition of the difficulties of producing those sales. There are other uses for such measures of market potentialities but these will serve for illustration.

The problem has been attacked by several methods. Certain prominent magazine publishers have put forth their own distribution of actual sales in the various parts of the market as indexes of market potentialities for all goods. These claims are presumably based upon the fact that the sales efforts of these companies have reached all parts of the country with fairly even intensity and hence the results indicate the relative responsiveness of the districts to sales efforts generally. A prominent manufacturer of typewriters accepts the circulation data of one magazine as his sole index of market values. There would seem to be some ground for questioning whether the relative distribution of sales of a five-cent magazine measures the market for a fifty-dollar typewriter. Another company selling a nationally advertised product accepts as its index the average sales distribution of ten manufacturers of different products each a leader in its line. Presumably this plan rests on the theory that if actual sales of one company are of significance the combined results of ten companies will be better. Certainly either of these methods has at least the advantage of simplicity.

Another line of attack has been to attempt to discover certain purchasing-power indexes which are significant for the particular product in mind. Among these are bank debits, income tax returns, wealth, and the value of all products. This method involves, first, discovering the significant factors and, second, determining the precise relationship which exists between these purchasing-power factors and the sales possibilities for the product in question. That is, it involves selecting the independent factors and determining the regression of the dependent factor upon them. It cannot be too strongly emphasized that no single factor or group of factors can be used indiscriminately to measure the market for all products. Income

data may constitute an important index to the potential market for one product and be quite misleading for another. Factors selected a priori often prove to have little bearing upon the problem when they are more carefully tested. It would seem, for example, that the number of miles of good roads in the several states might well have a bearing upon the normal market for automobiles in those states. A study of the relationship between roads and automobile registration, however, gives no ground for this assumption.

Much of what has been said concerning the need for measuring market potentialities by geographic areas holds also for measures along the lines of income groups. For example, how is the market for a \$2000 car divided between income groups? Do receivers of incomes of \$2500 to \$3000 constitute an important market for such a car? How important relative to higher income groups? It would seem that an answer to this question should aid in the formulation of wise advertising campaigns, that it would be helpful in predicting total sales possibilities, that it would be essential at any point where one needed to know whether two cars are competitive or noncompetitive, e. g., in placing retail agencies. Likewise an analysis of the market along occupational lines provides helpful facts for the making of business judgments.

The uses to which such analyses can be put often run far beyond the original objects sought. In this respect the situation is similar to that confronting the investigator in pure science. It is a safe generalization, I think, that the more we know in quantitative terms about this market, to the cultivation of which so much of the nation's productive energy is being applied, the more economical and individually profitable will be those efforts.

For the successful development of this type of analysis the following suggestions are offered:

- (1) More attention on the part of those in academic work to the progress being made by business concerns would be justified and careful study and exposition of the principles involved and the development of a sound technique based upon those principles would be helpful. No general studies can take the place of the work being done individually by business concerns, for each business is in a sense a problem by itself, but there are nevertheless certain principles and methods of approach common to business enterprises generally.

- (2) There is need for more accurate and complete information on many points in the field of distribution. There should be a governmental census of distribution comparable to the *Census of Manufactures*. It ought not to be necessary to rely upon private agencies for the collection of such fundamental information as the number and geographic distribution of retailers and wholesalers. The National Distribution Conference has made a recommendation to this effect.

- (3) Data are needed on the volume of sales and geographic distribution of those sales for specific products. Such data are essential for the scientific study and selection of indexes of potentialities of markets. Such

data exist for a few products; for example, private agencies collect and sell information on the sales of automobiles. An extension of the field of information covered by trade associations might quite conceivably fill this need.

(4) There is needed on the part of business men themselves a keener appreciation of the limitations of any statistical analysis and of its proper place in the formulation of business judgments. We are all familiar with the two extreme attitudes taken by business men toward work of this kind. One group will have none of it; another accepts the idea enthusiastically and treats the findings of statistical organizations as bits of revealed truth. One hesitates to say which of the two attitudes is the more dangerous.

I have here centered attention upon one kind of market analysis. Others deserving perhaps equal attention are studies in cost of marketing, studies leading to the selection of advertising appeals and the selection of advertising media, field studies (not primarily statistical in nature) preliminary to the launching of a new product or of a new brand of an established product, and many others. Along all these lines I think we may safely say that progress is being made and that together they constitute one of the grounds for expecting progress toward the solution of the problem of reducing wastes in distribution.

LEVERETT S. LYON.—It is extremely gratifying both to students in economics and to business men that Departments of the national government are undertaking seriously and carefully to compile information concerning domestic markets comparable in its scope and value to that gathered heretofore only for foreign markets, and that we have the beginning, at least, of a realization that there is as much reason in gathering information for manufacturers and distributors as there has been for the extensive studies made for the benefit of farmers by the Department of Agriculture.

One preliminary question concerning the market investigations of particular companies or industries is: Just how does the Department of Commerce determine the industries for which it is proper to make such an investigation? Types of industry, to say nothing of individual companies, are multitude in our country and it would, indeed, be interesting to know the standards which a government department can apply in determining that it would be worth while to spend its energies on one industry rather than another. The electrical industry mentioned above is a case in point. What standards did the Department apply in deciding that that particular industry was worthy of its succor.

The first question that I should like to ask concerning the areas surveyed is: How are they chosen? Can areas be soundly chosen? If we think in terms of the particular commodities manufactured by particular companies, this seems to present some real difficulties. The extent of the area over which companies may wish to sell is very different in different instances; the levels of income which can be successfully reached vary, as do the types of buyer in whom the vendor is interested. Individual

manufacturers find it necessary to make rather intensive studies of small areas, particularly of cities. To attack the New York market, the Chicago market, or that of the "forty-ninth state" may well be viewed as a task in itself. The small town market, the rural market, are examples of other points of attack. What ones of these shall be approached is difficult enough to decide for a single concern. It is natural to inquire just what basis of procedure the Department of Commerce finds that it believes will be most satisfactory and useful for selecting its areas of study.

A second question upon which more light would be interesting is whether many important factors in any area studied must not be omitted. Here again it seems, upon a first reaction, that the government's efforts must be limited to rather general matters and that many limitations must be made in the study. The competition that must be met in an area is one example of this. It does not seem that a survey of the area in which goods are to be sold would necessarily throw much light on competition. Competition, though it takes effect in an area it may not have its source there; that is, the competing firms may be located *anywhere*. Of course, something is to be learned by a study of the strength of a competitor as shown in a market area, but this alone gives one a poor basis of procedure unless it is fortified by a knowledge of the general power that the competitor may bring to bear and the number of potential competitors that are to be considered. These factors are hardly disclosed by a study of the area itself.

This difficulty of making a real analysis of a market situation by an analysis of areas is also emphasized when one thinks of the indirect forms that competition often takes. The effects of radios on the use of phonographs is an example. It is helpful for a phonograph company to learn, by a study of an area, that the number of radio sets being purchased seems to be affecting adversely the sales of phonographs. It is much better, of course, to see in advance, through careful observation of forces and interests at work the directions demand is likely to take, and to prepare for changes in the situation before they have become injurious.

It may be asked, also, whether a study of areas as a basis for market information is not necessarily forced to neglect a number of very significant factors which are not clearly apparent. The effect of hard roads is an example. The merchandise buyer for one very large southwestern hardware distributor is fond of illustrating this point by asking the name of the article sold by a wholesale hardware merchant the demand for which was most affected by hard roads. He supplies to his own question the answer, "rat tail files." For reasons that need not be gone into in detail, it appears that hard road transportation has broken up the grip of custom in certain southwestern districts where the use of files had been confined to a rather antiquated variety. There are many other factors of great significance in an analysis of the variations of demand that seem to be extremely hard to determine for a particular company from the data of an area.

Three general observations, perhaps not related more to Mr. Onthank's paper than to the general discussion of this meeting, occur to me. The first is that all of our efforts to aid enterprisers by means of furnishing

them information are, indeed, a peculiar comment upon the noble institutions of competition and individual enterprise. Basic to the theory of competition and individual enterprise is the notion that the individual knows what to do for his own self-interest and if left alone will convert social resources into those forms for which society is most ready to pay and will direct goods to the buyers most eager to pay for them. A strange and motley competition is this which finds those interested in great industries seeking to have the social agency of government furnish them with information upon the basis of which they may direct their activities successfully. And difficult, indeed, it appears may become the task of the governmental agency which undertakes to furnish a guide book to success for some of its great enterprises but is unable to do so for all of them.

A second thought which seems worth stating is the peculiar difficulty of individually guided industries even on a basis of a very large amount of research. In guiding their business affairs competitors can never have quite all the information they need for it is important that each one have, among other things, information about what his competitor is going to do. If he knows that, he will act somewhat differently from what he otherwise would, but if his competitor also knows how he is going to act on the basis of what he knows about his competitor, the competitor will act differently from what otherwise would have been the case and upset the calculations of the first.

And finally, a query as to whether this vast effort to learn all that one needs to know about the demand for goods in a complicated world is not likely to prove upsetting to certain doctrines long established and particularly dear to those of us who have taught introductory economics. How many radically inclined students urging the claims of a socialistic or communistic order have been quieted by the suggestion that it would be impossible to gather the statistical data necessary to determine the wants of the populace! Can it be that this great, growing enterprise of market research is undermining the validity of that assertion? Is it conceivable that the business man through his desire to know more than his competitor, is compelling the national government to develop, in part, a statistical basis that would make communism possible?

E. D. McGARRY.—With the lowering costs of production and the increase in the proportionate costs of distribution there has come an increasing interest on the part of the public—an interest which, without the facts on which to base conclusions, has resulted in a general condemnation of the entire distribution system. Much of the increased cost of marketing is due to the fact that our distribution system is now called upon to perform many services which were formerly not demanded. Consumers today apparently want many varieties of articles for the same use; they want sales on installments; they want goods artistically packed and advertised; they want goods on approval; they want salespeople to be specialists; but they fail to see that all these services cost money, and that they must be paid for as part of the cost of the goods. It is doubtful

whether any study of our marketing methods can reduce these costs to such an extent that the prices of commodities in general to consumers will be materially reduced. However, I am inclined to believe that many consumers would be willing to forego these services if the actual costs were made known to them and a reduction in the price of goods to which the services have not been applied were offered. To do this it would be necessary to adopt a standard accounting system running vertically through the marketing channels, so that the various costs might be allocated to the specific goods on which the services were expended, and the consumer allowed to choose between the goods with the services at a higher price and the goods without the services at a lower price.

Most of the papers presented seem to confine themselves rather narrowly to the distribution machine. The discussion of market analysis has dealt chiefly with population statistics and consumer buying power. I am wondering if the solution to the main problems of marketing does not lie more deeply in the mental attitude of the consumer. "Retail stores could certainly operate more cheaply if customers would buy in larger lots," says one writer. Another intimates that the elimination of unnecessary variety in articles for the same use would cause a great saving. It has also been said that if salespeople had to show goods only to those who expected to buy, the selling expenses of many articles could be reduced. Such statements are undoubtedly true, but an investigation which would lead to a solution of such problems would have to include the larger problem of why people want what they want.

TOPICS IN ECONOMIC HISTORY

E. F. GAY, *Chairman*

C. W. WRIGHT.—The last thirty years have witnessed a growing recognition of the great influence of the West in the country's history. Essentially this influence has meant that of having within our continental borders a vast area of rich, varied, and undeveloped natural resources obtainable for little or nothing. Probably no other factor has had broader ramifications or greater importance in shaping our political, our economic, and our social history. Certainly in our economic history, from the first settlement down to the close of the nineteenth century, nothing exercised a more predominant influence than this vast supply of relatively free and undeveloped land, the essential economic significance of which consisted in cheap natural resources. It was this which more than anything else differentiated the underlying economic conditions in the United States from those in the nations of western Europe. It was this factor which determined the predominance of the extractive industries among our economic activities, had an important influence in fixing the lines of manufacturing developed, and largely shaped the content and direction of our foreign trade, to say nothing of the reactions upon our transportation system, our monetary and banking history, and numerous other phases of our economic development. It was these resources, combined, first, with the growth of

population, much of which was chiefly due to the economic opportunity created by these resources which attracted millions to our shores, and, second, with the progress in science and invention which, during the nineteenth century, made available for the development of these resources facilities theretofore undreamed of, that chiefly explains the phenomenal material progress of the nation since it attained independence. That economic development was such as to raise the nation in a relatively brief period of time from a position of insignificance to that of the richest and economically the most powerful nation on earth. In absolute, if not in relative, growth the history of the world affords no parallel.

But now the situation has changed; the supply of free fertile land has been exhausted, the frontier has disappeared, the great westward movement of population has almost ceased. The preliminary process of opening up the virgin resources of the country is practically finished. The change did not occur suddenly and no specific date can be fixed upon to mark it, but the consensus of opinion appears to place it around 1890. If this be correct, I wish to venture the prophecy that future students of our economic development, writing with the better perspective of a quarter-century from now will view this change as marking the end of one great epoch in our economic history, and the opening of the twentieth century as commencing a new epoch in which the influence of the West dwindles and new conditions, problems, and tendencies become dominant.

In justification of this assertion I wish briefly to enumerate some of the more important tendencies and reactions in our economic development which seem likely to follow from the disappearance of free land. However, in so doing, I wish to emphasize the point that these are simply tendencies which may be either offset or accentuated by other forces. I do not for a moment claim that these tendencies, many of which are already in evidence, are solely due to the disappearance of free land; in practically every case there are other factors tending in the same direction, sometimes of even greater influence than this. For the most part these tendencies have already been observed and commented upon, but chiefly by those only concerned with some one phase of our economic life rather than its whole scope. There is little that is novel in the list. I shall simply attempt a hasty enumeration, with little explanation or proof; my purpose being rather by gathering these tendencies together to indicate their wide ramifications and fundamental significance in our economic development as a whole.

Naturally it is in the field of the extractive industries, particularly agriculture, that the tendencies resulting from the disappearance of free land are most obvious and important. The rate of expansion in agriculture will be checked; except as aided by science, growth will become more difficult. Already in value of output and number of gainfully employed this activity has given way to manufacturing as our leading pursuit. We have ceased to be a nation of farmers. As farm products and farm lands rise in value more intensive agriculture, greater use of scientific methods, and a more capitalistic type of farming will come into use; tenant farming may increase; more land will be reclaimed through irrigation or drainage; and

there will be greater pressure for opening up Indian and forest reservations. The conservation movement will gather momentum. The one-crop system will tend to give way to rotation of crops and greater diversification thus promoting greater stability. A similar result will follow from the growing tendency to produce products for domestic rather than foreign consumption and from the lessened pressure on eastern farms of newly opened land in the West. The speculative tendencies, overcapitalization of land values, and heavy indebtedness with the resulting pressure to mine the soil, attendant upon rapidly opened up lands, will be less in evidence as our farming becomes more settled.

In the field of manufacturing the reactions are less direct and important, yet not insignificant. As the demand for labor and capital for the opening up of new farming land declines, a greater portion of the available supply of these factors of production will be available for manufacturing and other activities, though this will be partially offset by the larger amount required by the more intensive type of agriculture. On the other hand many of our most important lines of manufacturing have been built up on the basis of our cheap and abundant supply of natural resources; our farms still supply by far the greater portion of the domestic raw materials used in manufacturing. As the rate of increase in this supply of raw materials may be checked or an absolute decrease take place when no new sources are available to be opened up, while the cost of obtaining raw material from the sources already developed tends to increase, one of the great advantages enjoyed by our manufacturing industries will become less marked. Though improved technological and business methods may counteract this tendency such improvements will also be available in other countries which still possess virgin natural resources.

In the field of our foreign trade far-reaching changes are likely to take place. Our exports of raw materials and food stuffs will become less important and the exports of manufactures more important. Conversely, in the import trade the proportion of food stuffs and raw materials will increase and that of manufactures may decline. Such shifts will greatly alter the course of this trade; relatively less will be with Europe; relatively more with the other continents. To the close of the nineteenth century our foreign trade was largely complementary to that of the nations of western Europe; in the future it will tend increasingly, both as regards exports and imports, to duplicate and to compete with the trade of those nations in the markets of the other continents. Its expansion may therefore become more difficult. Obviously, too, these changes may involve alterations in our protective tariff. As imports of products competing with our farm products take the place of exports an increasing number of the farmers' crops may actually benefit by protective duties, as few of importance have in the past; and the agricultural interests will doubtless be more insistent in their demand for protective duties. On the other hand it is quite likely that an increasing number of manufacturers, especially those engaged in the export trade, will seek to have duties lowered and that in this they will be joined by the growing group of international bankers.

In the field of finance the reactions are less significant, yet a few may be

noted. The scarcity of capital, the relatively heavy indebtedness and the consequent demands for cheap money and easy credit which are typical of a new and rapidly developing country are phenomena which are only too abundantly illustrated in our monetary and banking history. We may hope that in the future they will be somewhat less prominent. In our past the fluctuations of the business cycle, excepting those which were the aftermath of wars, have been closely connected with the speculative activities attendant upon the rapid opening up of our undeveloped resources. For the future we may hope that the influence of this aggravating factor in the cyclical swings will be greatly modified. So long as undeveloped resources created a greater demand for capital than domestic accumulations could supply, capital was scarce, we borrowed heavily from abroad and were a debtor nation. Now, with a relatively lessened domestic demand and unprecedented annual additions to the supply, our capital is relatively cheaper, and it is flowing out to other lands and we have become a creditor nation. Momentarily the needs of Europe dominate both the volume and direction of this flow; eventually a larger portion will seek outlet in the other less developed continents in the exploitation of which it will come into competition with the surplus funds of other nations.

Certain of the tendencies noted above will involve important changes in our international economic relations and policies. As we increasingly compete with the nations of western Europe for raw materials, for food stuffs, for markets for manufactures, and for opportunities to invest capital, international economic rivalries will be accentuated, the spirit of economic imperialism will grow in power, dollar diplomacy will be more in evidence, and a growing number of economic ties will bind the course of our economic and political life to that of the rest of the world. Whether we like it or not a policy of isolation is a thing of the past. We may well pause to consider the possible effects of the new position in which these altered economic relationships will place this nation. As a powerful economic competitor, as a wealthy creditor flaunting our riches in the face of debt-burdened nations who must pay us yearly tribute, how many friends among the powerful nations of the world shall we be able to count upon in case of need? That peace and a spirit of amity shall prevail in the world will concern us in the future more than at any time since we became a great power.

Another group of tendencies resulting from the disappearance of free land may be noted in the case of labor and the growth and movements of our population. In the past the outlet provided by free farms together with the relatively high productivity of labor, no small portion of which was due to the cheapness of our natural resources, have been important factors in keeping up the high level of wages. In the future this influence will be less marked. Thus an added impetus may be given to the labor movement. As the free land has been taken up, the westward movement of population has rapidly declined in importance. As the number of those engaged in agriculture increased less rapidly than the number engaged in industry and commerce, the movement to urban centers was accentuated. The last census showed that more than half of the population was living in urban centers

and that there was actually a decrease in the absolute number living in strictly rural sections. Thus all the problems connected with urban life will become accentuated. When the country was relatively undeveloped and weak we welcomed the inflow of immigrant labor to aid in its development. Now that we are strong, free land has disappeared and there is more danger that a continued influx might depress wages and increase the difficulties of assimilation, we the more readily adopt a policy of severe restriction. Such restriction of immigration combined with minor influences such as a possible growth of emigration and a possible increase in the price of food will tend to check the rate of growth of our population.

Finally, I would note a few of the reactions on our social and political life which may also prove significant in our economic development. The free undeveloped regions of the West have provided an outlet for the restless and discontented. With an environment essentially democratic, lacking old institutions and numerous powerful vested interests, the West has tended to be progressive if not radical, though the reforms sought only partially coincided with those demanded by industrial workers to the east. As time passes and their agriculture become more stable, we may expect the farming sections of the West to assume more of the conservatism typical of the older farming regions in the East. Increasingly the more radical groups will be found in the industrial and commercial centers. In the past, although the rise of capitalistic industry has tended to sharpen the lines between labor and capital and to accentuate class consciousness, the nation as a whole has not been divided along these lines. There has always been a large third group, the economic interests of which coincide neither with those of labor nor with those of capital. The mediating influence of this third group has been of great importance in modifying class conflicts and promoting social and political stability. But in this third group the agricultural class has been the largest element. As this class declines in importance while that of the industrial wage earners steadily gains, the mediating influence of this third group will decrease and with a larger portion of the population lined up on the side of either capital or labor, that struggle will become more acute.

The frontier has been the nursery of individualism and democracy, economic, political, and social; its impress on our ideals and institutions is well recognized. In the future that influence will decline. As the urban population grows and the rural population becomes denser, as we live closer together and in steadily growing interdependence so that the actions of each become of greater concern to all, the social point of view will be more readily accepted and the individualistic, laissez faire policy will be modified by an increasing measure of social control. With the economic opportunity provided by free land no longer available the insistent demand for greater equality of economic opportunity may force further alterations in our economic life. At the same time the greater density of population will further the closer contacts, the opportunities for co-operation, and the institutions dependent upon local concentration of wealth which are so vital to social progress.

While other reactions might be named, this list must suffice for the present.

And in bringing this enumeration to a close, I must repeat the warning given at the start that by merely listing these reactions without careful analysis or qualification of each I doubtless have given a considerably exaggerated impression of the influence that can fairly be attributed to the disappearance of the supply of free fertile land. In particular there are two ways by which my presentation has tended to produce such an exaggeration. First, I have made no mention of numerous other factors tending to bring about similar reactions, many of great influence, among which those furthering the development of our manufacturing industries are particularly prominent, nor of still other factors which may counteract these tendencies. In some cases, too, the tendencies themselves will counteract one another. Second, after all, it is cheap land rather than free land that has been the great influence in our economic development, and the fact that free land has vanished does not mean that all our natural resources have suddenly become dear. The important thing is that they will tend to become dearer, how rapidly depending chiefly upon our own growth, the development of other countries, and the progress of science.¹ Yet allowing for this exaggeration I would still argue that the tendencies set in motion by the disappearance of the supply of free fertile land are of such importance and have such broad ramifications as to justify the claim that this event marks a turning point in the history of our economic development. If the objection be raised that economic development is typically evolutionary rather than revolutionary so that drawing sharp lines to mark off epochs is wholly arbitrary, I must admit that such is certainly true of this change, though I believe that marked reactions chiefly traceable to this change are already in evidence and that the concept of epochs, properly used, has pedagogical value.

But whether we say this change marks the beginning of a new epoch or the beginning of a new trend in our economic development is a matter of slight consequence. After all the important point that I wish to make in concluding is this. If we agree that the disappearance of free land marks a change which in the course of time is destined to have widespread and important reactions upon our economic development then it is of the utmost importance that we should stop and consider what in the long run this will mean for the United States as a nation and for the well-being of its people. As one looks back over the history of nations one of the most striking things is the lack of ability on the part of leaders to look ahead into the future, forecast the probable trend of events, and endeavor to guide the nation accordingly. Shortsighted, opportunistic policies seem to dominate until one wonders whether the fate of nations is anything more than the plaything of temporizing and chance. Admittedly forecasting the developments of even the immediate future is most difficult in this age when the cumulative effects of scientific knowledge bring changes with astounding rapidity. The task requires the highest qualities of scientific

¹It is certainly a striking fact that during the half-century preceding 1900 the average value of farm land and buildings per acre rose from \$11.14 to \$19.81, a gain of only \$8.67, while in the single decade that followed there was a gain of \$19.79. Changes in the general price level account for only a small portion of this rise.

imagination. In this particular case it involves an analysis of the probable trend of development in the United States as affected by other forces as well as that of the disappearance of free land; it also involves a study of the probable trend of developments in the rest of the world and particularly of the conditions affecting the cost of natural resources in other countries. The difficulties confronting one may seem overwhelming; yet the vital importance of the problem for the future of the country and its people certainly justifies the attempt to study it. For such study the student of economic history is particularly equipped; to him the problem should be a great challenge to public service.

I. LIPPINCOTT.—A study of the operation of the Sherman Anti-Trust Law suggests: first, an examination of the economic and legal concepts in the minds of the framers; second, the expectation of the people of the country at the time the law was passed; third, the development of the application of the law to changing business conditions; and finally, an estimate of its accomplishments.

The Sherman Law was a marked departure from the former let-alone policy in industry and commerce. The law was enacted at the beginning of a period of rapid business expansion; it came into existence at a time when the imagination of the people was stirred by the evil possibilities of great aggregations of capital. Thus it was only natural that the conservative instincts of the people led them to look backward with a measure of comfort upon the economic institutions of the past, and with fear and misgivings upon those of the future, which, at the moment seemed to blacken the prospects of the relatively small business man, to entangle all industry in combination control, to threaten the former equality of business opportunity, and to deprive the consumers of the benefits of free and open markets.

The framers understood only vaguely the terms with which they dealt; they could only guess at the extent of the application of the proposed law and its probable effectiveness. They had no clear definition for such words as "monopoly," "competition," and "commerce." They could not agree upon the distinction between "commerce" and "manufacture." There was no clear understanding as to the extent to which the proposed law might infringe upon the rights of the states. There was doubt as to whether the test of unlawfulness should be made "intent" or "tendency." In addition, the lawmakers were not sure of their goal. Was big business alone, or combination, or monopoly the object of the proposed control? No clear answer was forthcoming. Moreover, the lawmakers had no idea of the slippery nature of the problem with which they were dealing. They did not conceive of such avenues of escape as the holding company, interlocking directorates, integrated control, consolidations, and community of stockholders' interest. No distinction was made in the debates of Congress between fair and unfair competition. In fact there was a tendency to regard competition as the desired panacea, and monopoly as the universally hated evil. No one could conceive that in later years a judge in a federal court would say in effect, as in the American Can case, that a monopoly contains within itself the elements of its own destruction.¹

¹*Federal Reporter*, 230, No. 4, pp. 859 ff.

The difficulties which arose in the case of the *United States v. E. C. Knight*¹ were already foreshadowed in the debates in Congress. The argument centered around the concept of "manufacture" and "commerce." Senator George of Mississippi and Senator Vest of Missouri, among others, urged that the combinations could evade the law. To which Sherman replied: "I have no doubt they will do so in many cases, but they can do so only by ceasing to interfere with foreign and interstate commerce. Their power for mischief will be greatly crippled by this bill. Their present plan was adopted only to evade the jurisdiction of state courts. They still maintain their workshops, their modes of production, by means of partnerships or corporations in a state." Sherman maintained that the only way that combinations could evade the law was to keep their products out of the channels of interstate and foreign commerce.²

Sherman accepted the decision of the Supreme Court in the cases of *Coe v. Errol*, in *re Greene*, *Veagie v. Moore*, and *Kidd v. Pearson*,³ and was willing to admit that "commerce does not commence until production ends and the voyage commences."⁴ He admitted that this was true "as far as the actual ownership or sale of articles within a state is subject to state authorities." But he insisted that "this bill does not propose to deal with property within a state, or with combinations within a state, but only when the *combination* extends to two or more states, or engages in either state or foreign commerce. The significant words in this statement are "only when *combination* extends to two or more states." In short, Sherman conceived the proposed law to apply to the *manner of organization* of the company and not to the nature of the business, whether "commerce" or "manufacture." In this respect he was not disturbed by the distinction which other senators were making because to him *combination* was the test, and it was *interstate combinations* of all kinds that came within the scope of the proposed law. As with the others, he derived the power for the proposed legislation from the commerce clause of the constitution, but insisted that this clause should be interpreted so as to include *forms of organization* as well as actual business units and the location of the industries.

Senator Vest of Missouri took exception to this mode of reasoning. He replied that the "Supreme Court of the United States has decided that it is not for the manufacturer or owner to say 'I intend these goods to go into another state.' They must actually be in transitu; they must be in the hands of the common carrier, or in his depot or warehouse, with the impression distinctly made upon them that, to use the expression of one judge, 'they are dedicated to commerce among the states.'"

Senator Vest continued: "The Senator from Ohio makes the fatal mistake as a lawyer, that because goods manufactured in one state may be at some time or another taken into another, which as a matter of course is possible in every contingency, therefore he can invoke the general interstate commerce clause of the constitution. He cannot do it. If we pass this bill on any such assumption and it goes to the Supreme Court of the United

¹Senate Doc. 62nd Cong., 1st Sess. Vol. 22, pp. 250, 259, 379.

²*Congressional Record*, 51st Cong. 1st Sess. Vol. XXI, pt. 111, pp. 2355 ff.

³116 U. S. 517 (6 Sup. Ct. 475); 5w Fed. 104; 14 How. 568; 128 U. S. 1 (9 Sup. Ct. 6).

⁴*Congressional Record*, 62nd Cong. 1st Sess. Vol. XXI, pt. 11, p. 2460.

States, we shall simply be told that all we have done here is *vox et praeterea nihil*, sound and fury, signifying nothing."

It is clear from this statement that Vest missed the subtle point in Sherman's argument, to the effect that he was not concerned with manufacture or commerce, nor with trade or industry, but only with "combinations," and the mere act of bringing business units together in combination with the result of restraint of trade, *was the act* which was made unlawful.

One more example may be given on the confused use of terms. Sherman himself maintained that the "intent" of those who formed the combination had nothing to do with the case. Thus he said: "The intention of the combination is immaterial. The intention of a corporation cannot be proven. If the natural effect of the acts is injurious, if they tend to produce evil results, if their policy is denounced as against the common good . . . it is the tendency of the corporation and not its intention, that the courts deal with." And he said further: "This bill as it comes from the committee now has certainly no such word in it. It was proposed as amended but has no place in the first section . . . ; the intention cannot be proved, though the tendency can. The tendency is the test of legality. The intention is the test of a crime."

The Sherman Act does not contain the words "tend" or "tendency," and the thought can scarcely be inferred from the verbiage of the Act, unless it may be connected with the words "attempt to monopolize," as contained in Section 2. In this respect, both legislative and court opinion have experienced a decided change. The legislation of 1914 has adopted the thought of Sherman, at least in part, for the Clayton Act makes "tendency" one of the tests of legality. In this statute certain practices are declared unlawful if their effect is "substantially to lessen competition" or to "tend" to create monopoly.

Now, as to the general scope of the Act as conceived by Sherman, the proposed law was not to be directed against all big business, nor even against all combinations. Thus he insisted: "It is said that this bill will interfere with lawful trade, with the customary business of life. I deny it. It aims only at unlawful combinations. It does not in the least affect combinations in aid of production where there is free and fair competition. It is the right of every man to work, labor, and produce in any lawful vocation and to transport his products on equal terms and conditions and under like circumstances." The combination of labor and capital in the form of a corporation to carry on any lawful business is a proper and useful expedient, especially for great enterprises of a quasi-public character and ought to be encouraged and protected as tending to cheapen the cost of production, but these corporate rights should be open to all upon the same terms and conditions. They have enabled individuals to unite to undertake great enterprises only attempted in former times by a powerful government.

The good results of corporate power are shown in the vast development of

¹*Cong. Record*, op. cit. p. 2465.

²*Ibid.* p. 2456.

³*Ibid.*

our railroads and in the enormous increase of business and production of all kinds."¹

According to this view, big business in itself was not an evil, nor combination in itself. There was a distinction in Sherman's mind between a good combination and a bad one—between the great enterprise which could be carried on in the public interest, and the one which was contrary to the public good. It is probable that he would have agreed with the majority opinion in the American Can case when the Court refused the petition for dissolution on the ground that no public good could be served by dissolution.² Whether or not Sherman would have accepted the doctrine that a trust which was illegal at its inception, and continued for a time in its unlawful practices, and then reformed and became a good trust, was unlawful is not revealed in his discussions.

The second point of view raised at the beginning of this paper related to the intention of the lawmakers and the expectation of the people of the country.

That the Sherman Law expressed the specific intentions of any member who voted for it is contrary to belief. The act was the result of the merging of minds. It was a collective product. It brought complete satisfaction to none of its framers. Thus, if by use of the words "object of the Sherman Law"³ Chief Justice Taft intends to distinguish between the purpose of the law and the purpose of the lawmakers, there is sound ground for distinction. There is a difference between the intention of the law and that of the lawmakers. This seems to be the only reasonable interpretation, because a law of necessity must express the composite idea of those who frame and vote for it. The interpretations which courts put upon the laws cannot be aided to any great extent by the individual opinions of those who participate in the debate. A law, at best, expresses only their generalized intentions. It indicates a general policy, and the particular application is left to the courts. On specific points, the opinions of this or of that legislator should have little weight in influencing judicial decisions.

Thus the application of the "rule of reason," as expressed at some length in the Standard Oil and American Tobacco cases,⁴ was an inevitable outcome of the increasing number of prosecutions under the Sherman Law. Justice Harlan's able dissenting opinions seemed to hark back to the time when law making was a much simpler matter than in 1890—to a time when there was a mere general consensus of opinion as to what the specific intentions of the legislators were. To say, as Mr. Harlan did, that it was the duty of the courts to "ascertain the will of Congress," and not to "amend legislative enactments," seems to imply that this will of Congress is specific and definite—that it can be ascertained, perhaps by a study of the debates on a particular bill.

Of course, the exercise of "judicial legislation" to which Mr. Harlan objected, may mean a number of things. It may signify a reasonable construction which a court puts upon the law; or it may mean the adaptation of the law to changing industrial or social conditions. But, in any event, for the reasons given above, the judicial process would be rendered futile

¹*Loc. cit.*

²230, No. 4 *Fed. Reporter*, 903, 904.

³The Anti-Trust Act and the Supreme Court, pp. 126 ff.

⁴*Fed. Anti-Trust Decisions*, Vol. IV, pp. 162 ff.

and impotent if it became the rule for the courts to seek as their guide the "will of Congress." A reasonable application of the law is the best that can be expected in any case; this would differ materially from the application of the "rule of reason" in the technical sense only in extreme cases. If the aberrant courts should then get too far out of line with the "will of Congress" the legislative body could prevent such tendencies by the appropriate legislation.

In the popular mind the opposition to trusts was stimulated by fear. Many a prophet of the people foresaw the time when in "their ceaseless round of speculation under the law they will produce that condition among the people in which the great mass of them are servitors of those who have this aggregated wealth at their command."¹ "They have become already," said Senator George of Mississippi, "a great wrong to the people. They have invaded many of the most important branches of business. They operate with a double edged sword. They increase beyond reason the cost of the necessities of life and business; they depress the price of what they buy."²

While it was granted that the great capitalistic enterprise could make economies and reduce cost, this result was only incidental. The main purpose, it was urged, was monopoly; the goal was an all-absorbing control of industry; the outcome was oppression. Thus, according to the popular idea the safest plan was to maintain the industries of the country on a relatively small scale. Political and social considerations also demanded this policy. President Cleveland was the spokesman of this point of view. He contended in his message to Congress of December 6, 1896, that "their (the trust) tendency is to crush out individual independence and to hinder and prevent the free use of human faculties and the full development of human character. Through them the farmer, the artisan, and the small trader are in danger of dislodgment from the proud position of being their own masters, watchful of all that touches their country's good . . . to be relegated to the level of a mere appurtenance to a great machine, with little free will, with no duty but that of passive obedience, and with little hope or opportunity of rising in the scale of responsibility and helpful citizenship."³ The safest policy, according to Cleveland, was to protect the moderately sized business and to thwart the growth of the huge enterprise.

The purpose of presenting the popular point of view is to show how far it failed of realization. Every census since 1890 has indicated a growth in the size of the average establishment. From 1890 to 1920 the number of establishments engaged in manufacturing business declined 22 per cent, and the capital invested increased 594 per cent. The figure in 1890 was \$18,300; in 1900, \$43,200; in 1910, \$64,900; and in 1920 it was \$153,300. The present position of particular enterprises with respect to size is common knowledge.

After the passage of the Sherman Law in 1890 the popular answers to the following questions would have been in the affirmative.

1. Does original intent in combination count for anything?

¹*Ibid.* 2461.

²*Ibid.*

³Messages and Papers of the Presidents.

2. Is a company which has attained to great size, wealth, and power unlawful?

3. Is a combination which seeks an end which is only attained in part unlawful?

4. Is the means by which the combination is brought about material to the case?

5. Should a combination be dissolved unless dissolution accomplishes an "affirmative good"?

6. Is it wise to attempt dissolution if the old condition cannot be restored—if Humpty Dumpty cannot be set up again?

7. Is a bad trust which reforms and becomes good unlawful?

8. Is an association of producers for the purpose of compiling cost data, orders, and sales contrary to the law?

The answers to all these cases would probably have been affirmative. But in practically every one of these instances the verdict now would either be negative, or an expression of doubt. In short, the twenty-five years since 1890 have witnessed a reversal of position on the leading trust issues. To mention only a few cases, the Standard Oil and Tobacco decisions taught us that we must settle each case on its merits—that we should apply the rule of reason. In the *Can* case the court refused to dissolve a combination that had violated the law at its inception but had amended its ways and become good. And the most recent *Maple Flooring Manufacturers Association* and the *Cement Manufacturers Association* cases, the court took the position that while information which is used for a common purpose by an association may be used for an unlawful purpose, yet in the absence of proof of such concerted action, such associations do not come within the prohibition of the law.

Further, we have shifted our position, as between 1890 and 1926, on the concept of "tendency" and "intent" as a test of legality, and on our attitude toward big business; and we have lost some faith in the virtues of competition.

There is much in the operation of the Sherman Law to indicate that as far as popular intentions were concerned, it accomplished the opposite goal. It was a cause in the further promotion of the development of combination enterprises, for, to the extent that its aim was to hold the business down to vigorous competition, it was an important factor in stimulating the formation of the very combinations it was designed to avoid; and to the extent that its purpose was to thwart the current trend of business forces, it compelled the growing enterprises to seek new forms, to enter new channels, which were not easily reached by any form of law.

The state of the popular mind at the present time seems to be that of acquiescence. Possibly this is due in part to calousness; in part to the feeling that there is some good mingled with the evil; in part to the feeling that the regulative methods are working more or less to the satisfaction of the country; and in part to the thought that an industrial evil develops its own antitoxin, that many evils are self-curing, if given time. Economic forces are a process which works out irrespective of legislation; competition on the one hand, and monopoly on the other, tend to be self-destroying. And this leads to the conclusion that the correct method is guidance and correction rather than prevention.

The Sherman Law accomplished some positive good. It set forth a standard of business conduct; it focused attention on certain evils and dangers, and encouraged watchfulness on the part of public officers; and it has thus prevented the worst apprehensions of the people of 1890 from becoming realized.

CLIVE DAY.—The object of the paper was to determine, by an analysis of the local distribution of industrial occupations in England in 1841, the extent of the market for industrial products at that time. If we assume uniform per capita consumption of any product, if we assume that the need for it is met by the producer nearest at hand, and if we know the local distribution of consumers and producers, we can evidently determine the extent of each producer's market. If we seek an average, describing the extent of the industry as a whole, we can evidently obtain one which will be more or less significant according to the detail and accuracy of our statistics and the method which we follow in working with them.

The date chosen for the study was fixed by the fact that the English census of 1841 attempted, for the first time, to enumerate in detail the occupations of the people. Previous censuses had sought to distinguish the persons engaged in agriculture from those engaged in trade and industry, and record the results even in the local subdivisions, parishes, townships, etc. The census of 1841 abandoned the attempt to follow the distribution of occupations so far as the parish, but on the other hand sought to present, in alphabetical arrangement, all the occupations carried on by the inhabitants, of whatever age or sex, with separate returns for every county and for all the larger towns.

The lack of a reasonably simple classification made it impracticable for the census makers to present in tabular form a distribution of occupations by counties, and the writer, to get results suited to his purposes, simplified the task in the following ways. First, he omitted altogether those industrial occupations, which included less than one hundred persons; they are about two hundred in number, but count for little in the aggregate, including about seven thousand persons. Secondly, he tested the distribution of the industries employing more than one hundred each, but still relatively small, by reference to specific counties and to the metropolis, and usually got in this way a satisfactory idea of the distribution, without the need of following them further. Only in the case of industries carried on more or less generally throughout the country did he find it necessary to make a complete tabulation.

A summary of his conclusions is presented in the accompanying table, giving the total number of persons engaged in industrial occupations.

Of a total of slightly less than five million persons occupied in England in 1841 about two millions, two-fifths of the whole, were engaged in industry (construing that term broadly). About two-fifths of these produced for a national market; a slightly larger number were limited to the market of their immediate vicinity; and the remainder produced for a market varying in extent between these two extremes.

*English Industrial Occupations, 1841, According to the
Extent of Their Market*

National	Textile	632,606	<hr/>	840,944	41%
	Metal	125,813			
	Other	82,525			
Metropolitan		5,538			
"	National	7,466			
"	Provincial	10,558	<hr/>		
Provincial				23,382	14%
Local				262,032	
				901,323	43%
				<hr/>	
				2,027,681	

Workers in textiles and metals formed nine-tenths of the industrial population producing for the national market. Other industries which had reached this stage of development were, in the period before steam transportation had transformed the organization, of minor importance. They are enumerated in the accompanying table, giving the total number of persons occupied under each head.

Miscellaneous Industries Producing for the National Market

Pottery	24,014
Hat	16,665
Straw plait	9,775
Glove	8,746
Ships	7,218
Glass	6,742
Chemical and mineral	5,274
Minor	4,091
	<hr/>
	82,525

N. S. B. GRAS.—There has been no study of life and work in an English village over a long period. We have been content to investigate particular aspects of village development without learning the whole story. It seems not unlikely that future progress will be made by the study of particular typical communities as they have experienced change through the centuries. In this way we can learn the facts of development and the forces at work; we can thereby substitute knowledge for assumptions or guesses.

The particular village chosen for present purposes lies in the chalk downs of southern England. The land is only moderately fertile but accessibility to towns and sea coast is considerable. Although the historic period of the village extends from the early seventh century, when it was given to the local bishop, detailed information begins only in 1208. From that date to the present, there is no serious break in the records.

In the early years of the thirteenth century the village was at its highest manorial point, when the demesne was heavily stocked, the acreage of tilled land largest, and the net result least—in terms of output for the labor expended. From about 1236 onward to the present, the history of the village is the story of the decline of the various manorial elements. The very improvements in cultivation made by the lord during the thirteenth and early fourteenth centuries actually prepared the way for the decay of the

manor, in so far as they involved the curtailment of the demesne and the consequent lease of holdings and partial commutation of labor. The most important part of the commutation came in the late fourteenth and early fifteenth centuries, though there were burdensome survivals of predial services until the year 1795. Leasing the demesne came in the early part of the fifteenth century under pressure from the tenants. In this and the two following centuries, there arose a market for tenants' land. In the exchanges of holdings, some families gained, some lost. Inequality of possession was more marked than ever before. A class of tenant-farmers of great promise grew up at this time. Personal freedom arose without dramatic accident in the sixteenth and seventeenth centuries. Consolidation and enclosure of lands took place at three periods, in the thirteenth century, in the sixteenth, and finally in 1795. Courts declined early in the nineteenth century, the last attempt to hold one occurring in 1899. The tenant-farmers had secured possession of the remaining acres of the customary tenants by the latter part of the nineteenth century. The customary tenements held by the tenant farmers were enfranchised in the late nineteenth and early twentieth centuries by the payment of considerable sums of money to the lord. In this way individual holdings were withdrawn from the manorial organization. Then the chief of the emancipated cultivators bought out the other cultivators and purchased the cottages of the remaining customary tenants or agricultural laborers. So at last, there is another virile manorialism based on the wealth of the new owner who secures his resources from industry. The estate is again worked as a unit under expert advice, but the future is uncertain.

A. P. USHER.—The opportunity to develop work at Harvard in economic history prior to 1750 has raised problems in connection with doctoral theses. The increased technical difficulties in the earlier period make it essential to limit the scope of the work of the student, and there is thus considerable likelihood that the individual dissertation would have little permanent scientific value. In order to insure substantial achievement, it is proposed to urge all the men working in the earlier field to concentrate their activities upon the problems of the price revolution in Spain. Eight or ten dissertations can doubtless be prepared in that field, and if results warrant, the enterprise may subsequently be extended to some of the other European countries in which existing results leave room for further study. It is hoped that it will be possible to interest instructors and graduate students in other institutions so that further co-operation may be secured.

Apart from the studies now being prosecuted under the joint direction of Sir William Beveridge and Sir Hubert Hall, the study of the price revolution has not kept pace with the development of our skill in handling price materials. No serious attempt has been made to add to the material published by D'Avenel and Rogers. Materials for Germany and Italy are fragmentary. Wiebe has done little more than work over figures collected by others. Despite the excellent essays of Christobal Espejo, there has been no serious attempt at presentation of index numbers for Spain. In view of the part played by Spain in the importation of precious metals from the New World, this neglect of Spain is much to be regretted. The

absence of specific national interest makes it easier for us to work from general European points of view which may place us in a position to contribute materially to the development of this subject.

Most of the material as yet used in studies of the price revolution was collected before much attention had been given to the methods of preparing index numbers. There is thus ground to wonder if it has been wise to collect individual prices over large areas with a view to throwing them into what purports to be a general average. Historians have long doubted the validity of the methods followed by D'Avenel and Rogers. Statisticians are inclined to believe that the material may be deemed a true case of random samples, but most historians are unwilling to presume as much uniformity of conditions over wide areas as must be presumed if these scattered data are to be treated as broadly representative. Sir William Beveridge has already discovered that more careful work changes the trends indicated by Rogers, though not by large amounts. It is doubtless true that the materials of Rogers and D'Avenel are not negligible even today, but no modern student would be justified in following such methods.

It is proposed to attempt to secure for Spain series of prices that shall be dominated for long periods by similar points of view. The Casa de Contratacion at Seville, the Mesta, the great military orders, the monastic establishments, the great ducal families, all reveal substantial continuity of life. Their economic interests were varied and the extant records are abundant. The municipal records will supplant these institutional records at many points. By carefully localized work it should be possible to construct representative indexes for each area; as the work proceeds more general averages may be computed when such averaging seems clearly significant. Market areas were not as extensive then as now, and even if there were some correlation in the movements of prices it would be unfortunate to assume that the mechanisms of correlations were identical with those that exist today. The value of the work will rest as largely upon the light thrown upon general economic conditions as upon the final index number series.

As Professor C. H. Haring has shown that the production of precious metals may have been exaggerated by Soetbeer and Lexis, we must really face the whole subject without bias from previous work. We must recognize that the results so far achieved are too uncertain to be given much scientific value despite the categorical form in which they are expressed and despite the extraordinary confidence of some of the writers. It may be that the prospects are promising and that adequate statistical results may be achieved, and in any case it is highly advisable to undertake the study of the problem now that new materials and improved methods have become available.

RAILWAY PROBLEMS

FRANK H. DIXON, *Chairman*

Professor Frank Haigh Dixon of Princeton University, chairman of the round table on transportation, prefaced the discussion with the observation

that the Transportation Act of 1920 has by no means provided a conclusive solution of all the problems confronting the railroads. The continuance of these problems, and the recurrent proposals for the amendment of the Transportation Act made it desirable to consider them from the broad point of view of public policy, and gave warrant for devoting the round table to the discussion of the leading points at issue rather than to questions of pedagogy. Five topics were proposed for consideration: (1) the rate section of the Transportation Act; (2) the transcontinental rate problem; (3) consolidation; (4) motor competition; and (5) the Railway Labor Board.

Dr. Max O. Lorenz of the Interstate Commerce Commission opened the discussion of the rate section of the Transportation Act by tracing the movement of rates and net earnings of the roads in the last five years and pointing out that in 1925 for the first time net earnings gave promise of reaching and passing $5\frac{3}{4}$ per cent on the property value, which was the fair return adopted by the Commission in compliance with the provisions of the law. Thus in a sense the rate provisions are just beginning to come into effect, and the question rises as to whether or not the return fixed by the Commission is a fair return. This question is now before the courts.

As more roads reach and pass the fair return so fixed, the question of recapture of excess earnings becomes more important. Actual collections of such earnings to date have amounted only to about \$6,000,000, but the effect has been to stimulate interest in the valuation of the roads and provision for completing it. By the end of 1925 the accounting, engineering, and land work was practically completed, and tentative valuations had been served on about 50 per cent of the mileage. Technical and legal difficulties retard the work, but the nearness to completion justifies finishing it. The valuation will constitute a valuable inventory as of a certain date, although the problem of keeping it current has not yet been solved.

Commenting on the Hoch-Smith resolution of the last Congress, Dr. Lorenz pointed to the difficulty of effecting a general rate reorganization, and deprecated the lowering of agricultural rates should that involve a subsidy to such products. As a general principle each group of commodities should bear the charges which are attributable to it.

Professor Eliot Jones of Stanford University turned attention to the transcontinental rate situation as affected by water competition through the Panama Canal. Pleading the competition of water lines to western terminal points, the transcontinental railroads have filed application for "fourth section relief" under the Transportation Act; that is for authority to depart from the long and short haul principle by reducing the rates to Pacific Coast terminals from mid-western shipping points below similar rates to the intermountain territory. To support this request the roads have claimed that any contribution made by the additional traffic obtained would reduce by so much the joint expenses to be borne by the intermediate traffic. Professor Jones took the position that this application should be denied. In support of this position he pointed out that in 1923 the westbound intercoastal tonnage through the canal between United States ports amounted to less than 1.5 per cent of the tonnage of the transcontinental carriers, and that even though such tonnage is long-haul traffic, the percentage which any given road could take by

making competitive rates would be relatively insignificant. Furthermore, the majority of the traffic is of a type that has to be taken at very low rates. Since certain types of commodities are particularly adapted to water carriage, it is to the economic advantage of the nation that such transportation should continue. In answer to the argument that the relief sought would enable the roads to meet the problem of empty cars hauled westward, Professor Jones argued that the withdrawal of coastwise shipping would throw additional eastbound tonnage to the roads. The gain to the railroads from fourth section relief would thus come not so much in utilization of empties as in an increase in the total volume of traffic. But such an increase will come, without fourth section relief, through the development of the intermountain territory.

Professor Jones concluded by urging consideration of the larger aspects of the question, and suggested bringing the water lines under the control of the Interstate Commerce Commission in order to assure a co-ordinated system of transportation, with assurance of continuity of service at reasonable rates.

Discussing the topic of consolidation, Professor William Z. Ripley of Harvard University opposed the adoption of a plan of compulsory consolidation, but advocated the retention of the present provision which requires the Commission to draw up a final plan of consolidation. He suggested that the Commission be relieved of many of its purely administrative functions so as to permit it to devote itself to the study of vital problems.

Professor Ripley emphasized the need for working out a final plan of consolidation on the ground that in the absence of such a plan the Commission has, in seeking to forward voluntary plans presented to it, so bound itself as to render more difficult the completion of general consolidations of advantage to the nation as a whole. Referring to the Central Pacific-Southern Pacific case, he pointed out the pivotal character of the Central Pacific in relation to all the western roads, and the embarrassment which might be experienced in attempting the solution of the general tangle west of Chicago. The closed terminals which result from the Chicago Junction decision provide an illustration of dangerous precedent. Likewise the recognition of state jurisdiction in the Nickel Plate case may prove to be a serious limitation of the federal control over consolidations. The Denver and Rio Grande case and the Chesapeake and Ohio case of 1923 are likewise instances in which action has been authorized without sufficient consideration of the effect on other roads not included in the consolidation. The real need is to consider all proposals in the light of national policy. The preparation of a final plan would afford a basis whereby proposals for voluntary consolidations could be considered, not from an immediate or local, but from a national point of view.

Professor Winthrop M. Daniels of Yale University reviewed the recent developments of motor competition in transportation. Considering first the effect on passenger traffic, he attached significance to the fact that while the number of passengers using railroads has declined since 1916, passenger mileage has increased. Although the inroads of motor competition in this field have been very apparent, the loss to the roads has been confined to short distance passenger traffic other than commutation

traffic. The motor vehicle, he held, has absorbed the normal increase that would otherwise have accrued to the railroads.

Motor truck competition has been much less serious. The truck is adapted to handle only the package and less than carload freight which at most is not more than 15 per cent of the total freight traffic. The advantage of the truck in saving terminal expenses has caused its employment by the railroads themselves. Competition has thus been replaced by co-operation between the two types of transportation, and many large railroads have begun to use motor trucks for local package and less-than-carload shipments. The motor bus has come into use both as a feeder and as a means of cutting down use of trains for thin local passenger service.

Professor Daniels maintained in conclusion, that the railroad would never lose its commanding position as the backbone of our transportation system but would tend to confine itself to mass, long distance and commutation traffic, and to concede to motor vehicles the carriage of passengers and package freight over short distances.

Professor S. H. Slichter introduced the next subject for discussion, the Railroad Labor Board, with an explanation of the difficulties this body has faced. From its inception, the Board has been opposed by the unions as a step toward compulsory arbitration. The concessions made by the Federal Railroad Administration to the employees were immediately challenged by the roads in early cases before the Board. The men were unwilling to give up their advantage without vigorous opposition.

While the Board has done much to classify railroad labor and encourage collective bargaining, it has not responded to the opportunities afforded for amicable settlement of disputes. In the case of the non-brotherhood unions, the claim for union recognition and more work might have been balanced against the employers' desire for elimination of certain working rules and for reduced wages. Instead of such compromises, the Board by unnecessarily harsh decisions has rendered the position of moderate union leaders difficult.

Professor Slichter held that the continuance of the Labor Board involves serious difficulties: (1) The Board lacks the confidence necessary for successful arbitration; (2) union opposition to a permanent board is a serious handicap; (3) mutual recognition of rights by opposing parties is lacking but essential; (4) arbitrators must understand union psychology and politics and the intricate complex of interests which underlies issues.

Although it is probable that the machinery of the Newlands Act will soon be substituted for the Railroad Labor Board, it may be found necessary to resort again to arbitration. Should increased prices without compensating increased efficiency make necessary a demand for increased rates, the roads may feel it necessary to concede wage increases only under compulsion in order to improve their case before the Interstate Commerce Commission. Two factors, however, indicate a brighter future for labor relations on the railroad: the high value placed by the roads upon the good will of their employees, and the likelihood that union leaders will prefer arbitration by temporary boards to nation wide strikes.

In the brisk discussion that followed, the preceding speakers were often called upon to defend or supplement their statements. Many additional points were introduced by those taking part. Mr. Parmelee of the Bureau of Railway Economics called attention to the experimental nature of the

Transportation Act. He also sought Professor Ripley's opinion on the Commerce Commission's recent recommendation that it be relieved of the task of planning consolidations. Professor Ripley stated that he did not agree with this recommendation. Professor Van Metre of Columbia University held that the diversion of water traffic to the transcontinental lines might cause greater improvement of the condition of the latter than tonnage figures might indicate. Professor Miller of the University of Iowa explained the peculiar situation of the middle western industries affected by transcontinental rates.

LAND ECONOMICS

B. H. HIBBARD, *Chairman*

Land economics may be viewed as an old or a new study, depending on one's appreciation of the field as a part of economics during the past century and a half, and a conception of what has happened during the past few years and the prospects of the future.

The Greeks and the Romans had views concerning land. In fact their economic thinking centered on agriculture quite as much as on trade and industry. How did it come, then, that the classical economists treated land less carefully than they treated labor and capital? The answer is easy and unmistakable. They lived in an age of rapidly developing capital and its attendant wage payment. Land was not a primary issue. The troubles and problems of the time centered in labor and capital and so continued for a century. It is true that during the nineteenth century many land questions were arising. Legislatures and congresses were passing acts pertaining to ownership—were disposing, as in our own country, of vast stretches of unoccupied territory. Yet the best thought of the times centered on the solution of immediate problems: how to get the land settled; the determination of plans for getting the land into productive use; the unconscious over-appreciation of the fact that land without people is a wilderness, and people without land a mob. These were the natural fruition of a *laissez faire* policy, carried to its ultimate conclusion. The untenable yet tenacious conviction that the prosperity of the individual was tantamount to the prosperity of all led to the belief that each individual could be trusted with his share of the land, a share dependent upon his ability to acquire. Being entrusted with such tracts of land as he might acquire he was logically entrusted with the privilege of using it as he saw fit. Such doctrines were the outgrowth of a study, and acceptance, of the teachings of such men as Rousseau, Adam Smith, and Jeremy Bentham. Many of us are inclined to look back upon these philosophies as outworn and out of date, little realizing that our own fundamental institutions still bear, not alone the earmarks, but the very form and character of their most distinctive features. American land policies, up to date, are, with few exceptions, the embodiment of an exaltation of the individual with little appreciation of, or concern for, the life and welfare of the states. We are just learning that the *laissez faire* policy of the eighteenth and nineteenth centuries has succeeded admirably in creating knotty problems for the twentieth century.

During these centuries the economists devoted their attention mainly to such matters as demanded attention. The complacent views of the classical economists respecting the right and the ability of each laborer to take care

of himself in bargaining with employers had broken down, hopelessly and pitifully, decades before the economists came to the rescue with an inductive analysis which was useful in setting matters right. Capitalists went their ways unhindered by the teachings of the economists, even with the blessings of the devotees of a natural order, until attacked, perhaps not wisely, but at least vigorously, by the socialists midway between the time of Adam Smith and the present. Every shade of belief from that of unhindered privilege to outright government ownership has been advocated constantly and persistently during the past seventy-five years. Whatever may be the outcome, we have at least a body of doctrine, and a generation of practice, more or less effective, in the control of capital and the treatment of labor.

It may seem strange that economists have put in lifetimes working on the questions of labor and capital, writing whole libraries of books, while the subject of land has received relatively little attention. The explanation—while perhaps not gratifying—is fairly clear; there has been plenty of land. At once the query will arise: Has there been plenty of land in all countries? Has England had plenty? Not in England perhaps, but in general, yes; England has had land enough and to spare somewhere within her domains. Russia has had land enough up to date. Such countries as Denmark, Norway, Holland, and Switzerland have not had land enough, and in this fact lies the partial explanation why the United States has more Danes, Norwegians, Dutch, and Swiss than are to be found in their native lands.

Nor have doctrinaires within the field of land theories been altogether wanting. Mill went far beyond the earlier classical writers in an attempt to evolve a theory of landed property, and soon after his time Henry George brought forth an elaborate doctrine based almost wholly upon land. Likewise Alfred Russell Wallace gained distinction through his attempt to solve, once for all, the land problem. All these writers, Mill, George, and Wallace, offered similar remedies for the supposed ills. All three assumed that the diagnosis of the case was a simple one, and as a result offered naïvely simple prescriptions. Mill would tax out of private hands all future unearned increments, manifestly a difficult thing to do, and by no means is it obvious to all that it would be desirable. Henry George would treat land as stolen property and claim and appropriate its value as a public right, restored to the public. Wallace's view is much like that of Henry George's except that he recognizes the right of the present owner to his property.

Not only have we had the theories respecting land and its peculiarities, but we have had attempts to put the doctrines into practice in such widely separated places as in the cities of western Canada, in Pittsburgh, in New Zealand, and in parts of Europe. The widespread belief that rent is in some peculiar, even sinister, sense unearned has made of the landlord's receipts a tempting object of attack whenever the raising of additional taxes becomes difficult.

Some of our economists with great cleverness have in recent years undertaken to explain away the advisability of treating land separately from capital. They have been presenting arguments to prove that land is merely a form of capital and during a static period, long or short, the contention that land is viewed, practically, as part and parcel of capital as a whole is tenable. Even so the land question continues to appear in a form and manner quite distinct from that of capital in general. It is fruitless to

contend that land and capital are one and the same thing in the face of recent developments in the farming sections of the country. The farmer is well aware of the fact that he made money out of the rise of land prices from 1896 to 1920, and that he has lost money on land from 1920 to 1925. He needs no economist to show him that his troubles have been more fundamental than those involved in borrowing current capital for short, long, or intermediate periods of time. The collapse of prices in 1920 was due to world causes but the effect was manifest in influence on land values much more than in the influence on the prices of products and consumers' goods no matter how vitally connected the latter and the former may be.

Investments in land are for long periods of time. A price once set projects itself into the future, perhaps a decade, perhaps several decades, before a readjustment can be effected. This is the situation in which we find ourselves today. Our attention is centered on land, on its durability, on its productive powers, on its slowness to respond to price influence downward, and its readiness to respond to upward turns of prices.

It is hardly necessary to mention, so well known are they, the recent changes in land ownership and the part played therein by the state throughout a large part of Europe during the past thirty years, and more particularly during the past ten years. During the past thirty years Denmark has made her land system over, Ireland has passed through a land revolution, Russia before 1917, was revamping her land ownership, while England and Italy were both making important changes and anticipating others much more profound. Within the past decade Russia has staged a revolution in land ownership, Poland, Czechoslovakia, Roumania, and other lesser countries have torn their land systems up by the roots, while in England and Italy radical changes in land ownership threaten to become major national issues.

In our own country land problems are many, and are attracting attention. For instance the tendency of private enterprise is to produce wheat, potatoes, or dairy products on the remaining 250,000,000 acres of cut-over land. A strong public sentiment demands that many of these acres be put back into forest. To effect this reform, for it is nothing short of a reform, involves the most baffling questions of taxation and a survey of the land including an estimate of its economic possibilities for different uses. Left to themselves the forces involved will no doubt at some time arrive at a state of comparative equilibrium. Whose purposes will be served in arriving at such equilibrium is, however, quite another question. If the solution is left for private interests to work out it would be a safe guess that the strongest of these interests will eventually so shape matters as to result in a measure of prosperity for themselves. That the public would gain some of the benefit is likely, even inevitable. But that the public interests would take second place as compared with private interests is also certain. Private enterprise has given us with respect to wood and lumber, first, an unprecedented and cheap supply and, second, a scarcity, with a correspondingly high price. As we face the future, do we want to trust the management of this vital matter to the unregulated operations of private capital? The question needs no answer, and in any case cannot be answered in the negative, although we are already exercising a powerful negative influence through the operation of our general property tax system.

In spite of the fact that Congress appears to be determined to carry out

its land policy of putting all public lands, except a remnant of the forest area, into private hands, and then seeing what will happen next, it is evident that the disposition of the grazing lands is not at present satisfactory or final.

We have a deal of opinion concerning the tenancy situation. We are told on the one hand that within a few years the farm land will be owned by a group of wealthy absentee landlords and the tenants will become hopeless appendages to an arrogant aristocracy. Again it is predicted that ownership will continue, but that the farmer will be reduced to the status of a peasant—poor, abject, and servile. No doubt these pictures are painted with unwarranted blackness, yet none of us has the assurance to predict that the whole matter of farm ownership will take care of itself in a satisfactory manner with no attention or interference from the state or a third party.

Another subject on which we have much opinion and inadequate information is that of speculation in land. The information which we do have is of such a character as to suggest most urgently that much more extended inquiries should be made into the question. Is speculation the result of padded, induced values? Or is it an incident in the natural course of value increases? Should we undertake to prevent, or modify, speculation? The information already available is the best argument for increasing the studies on which programs of action may be based. At present we have much opinion and little knowledge regarding the essence of speculation. We do have abundance of evidence of its ill effects.

In other words we have in this country great, unsettled, land questions. For the most part they have not reached the stage of acuteness which demands immediate attention such as did the railroad strike of 1877 or the railway rate situation of the period of 1875 to 1890. The ownership of land is widely diffused. It is held mainly by individuals, not by corporations. Thus the blame, so far as there is any, cannot be centered on some few owners as was the case with the railroads, or, for that matter, is now the case in the anthracite coal fields. Big corporations do indeed hold much land in the cut-over country, but they do not occupy a strategic position with respect to the control of the main body of lands on which the food supply, or the business of manufacturing and trade, depend.

The facts enumerated above account in part at least for the comparatively small amount of attention paid by the economists to land. Strangely enough we have carried economic thinking in the field of labor and capital so far that were the classical economists to return to the scenes of the former work they would hardly recognize the treatises turned out during the past twenty years as belonging to the same subject to which they devoted their attention. Not so in land. Ricardo and John Stuart Mill would soon find themselves at home among the modern thinkers on rent, land taxation, and the rights and limitations of rights respecting land. Ricardo would be justly proud to find the main tenets of his rent doctrine undisturbed, and Mill would no doubt be gratified to discover that a large number of thinkers agreed with him that it would be desirable to tax future unearned incomes out of land. But why there had been no increment, earned or unearned, in English farm land during the half century since his acquaintance with it, and why, with the unprecedented progress of society since his day the landlords held a less influential place instead of one of

more power, would be perplexing. The progress of society, which he could not deny as having taken place, would not appear to have given the landlords "both a greater amount and a greater proportion of the wealth of the community" than they formerly held. He would be perplexed to find English land selling at such low prices and interest just about as high as when he last collected, or paid, interest on a loan. He would be less worried about the "probable futurity of the laboring classes" than he had previously been.

But should Mill on looking about wish to know why we are taxing land at such a high figure as to prevent the reforestation of some of the waste places in which he took delight, leaving them covered with blackened stumps, he would find plenty of solitude, but probably not the sort he had in mind as essential to depth of meditation and character. The superfluous trees rooted out in the name of improved agriculture would demand explanation. Quite possibly he might decide that we had reached a little over anxiously for the future unearned increments and instead of collecting them had precluded their appearance.

But no matter who should come upon the scene and ask why we had not taxed land more or less, why we had not developed land policies relative to our unused and partially used lands; why we had not gathered the available facts relative to the effects of the 50 per cent exemption from taxation on buildings and their contents in Pittsburg; why we had not followed up the results of the tax laws of North Dakota; why we had no adequate treatise on tenancy—to these questions the economists would make halting answers. We might make reply that "while thy servants were busy here and there" this subject was neglected.

In substantially all countries in which there have been land reforms or revolutions the immediate occasion for the attack on the previous systems has been some sort of development found no longer tolerable. In Ireland the absentee landlord was hated as the despoiler of Irish agriculture. In France at an earlier date, it was one of the items in the arrangement of aristocracy. In Denmark it was not so much dissatisfaction against a landed class as it was concern for a landless class. In New Zealand it was a deliberate substitution of a real measure of social control for a laissez faire policy which was clearly not working out to the best interest of society.

In our own country no distinct crisis has been reached. At the same time the forces are clearly at work preparing something in the nature of crises for the future. Shall we let them take their unhindered course and accept the consequences as something inevitable when they culminate, or shall we, as is done conspicuously in the labor world, by study, adjustment and compromise, work toward an ideal and even though it may never be reached, avert an ultimate catastrophe.

To recognize a field as insufficiently worked is not so much a complaint as a challenge. And by no means should we neglect to notice the work already done. Land studies of a notable character have been conducted for some six years by the Institute for Research in Land Economics and Public Utilities. Likewise the Bureau of Agrucultural Economics has done distinctive pioneer work in this field, while a large number of states, probably not less than ten or twelve, have gone quite beyond the initial stage in land studies. The work in progress is of high grade, yet with all this in mind one is still justified in saying that land economics is an open field. In contrast with economics of labor and capital, in which so much work

has been done; in which a priori reasoning has given way to painstaking research and analysis, we are but recently emerging from the period of deductions, based on a few accepted postulates, with respect to the great and intricate field of land economics. The situation is one of great promise and limitless opportunity.

L. C. GRAY.—My purpose is not to present an outline or catalog of all possible research topics, but rather, to face the existing land problems in the United States and to bring forward some of the lines of research upon which progress in the solution of these problems is dependent.

Let us first face the problems of land utilization. There is almost universal agreement among thinking people that a radical revision of policy with respect to land utilization is essential. The old policy, expressed in a sentence, was to transfer public land with the utmost liberality into private ownership, but to maintain an attitude of *laissez faire* with reference to its mode of utilization and settlement. It is idle at the present moment to criticize this policy. Its results are sufficiently apparent.

We now find ourselves confronted with an area of cut over land, estimated roughly at 250,000,000 acres, mostly in private ownership, which lies in a condition of worse than "innocuous desuetude," notwithstanding the prospect for an acute shortage of timber, an equally inadequate policy with respect to the utilization of the vast areas of semi-arid land, and the serious deterioration of the range lands of the public domain through employing them as a grazing commons. The sporadic invasions of these lands, as well as of the cut-over areas, by settlers, disturbing the established range industry and creating a class of farmers operating on a most precarious economic basis, and the not less serious problems of public finance connected with these scattered and planless processes of settlement have been frequently and adequately described, and need not be elaborated in the present paper.

Now, the nonsolution of these problems of utilization largely awaits the results of purposeful and constructive research and investigation along certain lines. The first great need is a plan for allocating our undeveloped land area as between agriculture and forestry in wooded regions and between agriculture and range-grazing in nonwooded regions.

This is both a quantitative and a qualitative problem. Quantitatively it is needful that we have some conception of the amount of land that will be required for farms, in the ordinary sense of the word. This is in large degree a problem in agricultural forecasting because there is no use in developing forests on land that should be employed for farming during the next forest cycle. Now, a forest cycle may range in length from sixty years or longer down to ten or fifteen years, for posts and poles. Since some of the land devoted to the shorter cycles could be diverted to agriculture if necessary, it may be said that the requisite forecast is for a period of probably twenty or twenty-five years in length.

The first phase of such a forecast involves determining for the nation as a whole the amounts of crop land and of pasture land that will be required during the period of the forecast. Such a forecast involves a num-

ber of special lines of research. It is necessary to obtain a careful estimate of probable increase of population, and to determine existing per capita requirements of crop and pasture land, a problem especially complicated in the case of pasture by the great qualitative differences between woodland pasture, arid grazing lands, and so-called improved and rotation pastures.

Since a considerable part of our present land is employed for export production, we must allow for the influence of many economic factors which it is not necessary to enumerate before an audience of economists. A not insignificant line of inquiry bearing on the future course of our foreign trade in farm products is the potential increase in the productive area of world agriculture. Since the considerations involved are geographic as well as economic and political, this line of research requires the joint efforts of the geographer and the economist. Since we have estimated that only 17 per cent of our harvested crop area was employed in 1920 in providing directly or indirectly for exportation and less than 10 per cent of our humid pasture other than woodland,¹ it is clear that much the larger part of the problem of forecasting is the determination of the future requirements for domestic consumption. The question of foreign trade in the form of imports enters into this problem to some extent, particularly in regard to the importation of Canadian grain, Argentine meat and foreign wools, and the probable commercial and financial policies likely to determine the course of trade. In large degree, however, the problem involves allowances for changes in consumption and changes in intensity of cultivation. Since we have estimated that 77 per cent of the acreage used for domestic production in 1920 was employed to produce feed for livestock, including horses and mules, it is clear that the tendency in regard to the per capita consumption of livestock and livestock products and with regard to the employment of horses and mules in production is a large phase of this problem.²

Another line of research which is contributory to such a forecast is the determination of the probable changes in economy of land through increased production per acre. Some analysis has been made in the Division of Land Economics of the trend of crop yields with a view to breaking up the available statistical data in such a manner as to isolate to some degree the influence on the average of such contributory factors as deterioration or improvement of soils, weather cycles, and changes in location of production, particularly the influence of new areas. Significant comparisons with the trend of yields in various foreign countries has also been made.³ The considerable body of experimental data on crop yields for various types of soils in relation to expenditures for fertilizers and the experience of various foreign nations in regard to the costs involved in achieving high

¹See article "The Utilization of Our Lands for Crops, Pasture, and Forests," *Yearbook for 1923*, U. S. Department of Agriculture, pp. 455-460.

²My colleague, Dr. O. E. Baker, is devoting considerable study to this problem.

³See the paper by B. O. Weitz entitled, "An Analysis of Crop Yield Statistics with Reference to Soil Deterioration," *Journal of the American Society of Agronomy*. (February, 1926).

yield levels particularly need study and interpretation by the student of American land problems.

A rough attempt at a first approximation in allowing for all of these elements in a forecast of requisite increase of crop and pasture land in the next four decades was made two years ago by the Division of Land Economics.¹ This estimate needs to be continually and critically revised and refined as new information becomes available.

Such refinement is particularly desirable in breaking up the forecast into some of its component parts by way of considering the probable outlook for each of our principal lines of agricultural production, not only as a means of promoting the accuracy of the forecast, but also to determine its bearing on the probable requirements for expansion of the farming area in particular sections of the country, and the proper allocation of available land area as between crops and forests or crops and range grazing. For instance, a definite policy for the Piney Woods region of the South, for the cut-over portion of the Great Lakes States, for the Northern Great Plains, and other important problem areas constitutes the next step in an orderly and logical program of research.

Such forecasts involve too many elements of uncertainty to enable one to hope for great precision of results, but they will make it possible to replace a mental condition of absolute uncertainty and vagueness with some conception of the probable magnitudes, upon which conception a definite policy of action may be based.

The lines of research just mentioned raise the question as to their relationship to that generally accepted proposition that a national land policy should start with a systematic economic classification of the land area. To the layman this suggests a minute field study covering the entire country square mile by square mile and involving a heavy expenditure of funds. If such a classification is to be attained in the present generation it will be necessary to proceed on much simpler lines.

The work of land classification needs to be approached first by the method of elimination. First, we shall proceed to eliminate the regions of established farming. Such regions have their problems, to be sure, and not the least of these is the more efficient utilization of the land. Nevertheless, land classification as such is likely to be a futility if we attempt to employ it as a means of solving all the economic problems of agriculture in developed regions. At the other extreme, there are large areas in our cut-over and semi-arid regions that can be eliminated from the problem of classification, because there need be no controversy over type of use. In the one case they can be employed only for forests; in the other, they are either absolute desert or they are serviceable only for grazing.

Now, in most of our states there is room for one or more careful indoor studies of this character, involving a combination of the technical methods of the geographer, the statistician, and the economist, for the purpose merely of delimiting the problem of land utilization and of determining the loca-

¹"The Utilization of Our Lands for Crops, Pasture, and Forests," *Yearbook for 1923*.

tion of the areas which by reason of their marginal character deserve more intensive study.¹

Even for the regions where the type of utilization is doubtful, a great deal of indoor research can be employed before outdoor classification should be attempted. The rather abundant existing materials with respect to soils, topography, climate, forest or forage cover, land ownership, taxation, population, transport facilities, market outlets, and the economic status of existing industries can be brought together, appraised, and synthesized with a view either to determining a policy of utilization or of pointing out the gaps which need to be filled up by special field studies. The total area will be broken up into several districts of more or less uniform geographic or economic characteristics, and for each of these areas a special monograph of the scope of a doctor's thesis could profitably be prepared. In some cases such studies will overlap state boundaries and will afford a proper field for co-operative research.

The studies which have been described will have resulted in assigning most, if not all, of the undeveloped areas to one of these major uses: (a) forestry, with possibly incidental grazing; (b) range grazing; (c) farming in the ordinary sense, with, of course, the usual and necessary provision for woodlots and pasture. From this point on there is a vast field of research for the purpose of determining the methods and policies to be employed in bringing about the general type of utilization decided upon and of determining the special character of use justified by particular conditions.

In the case of areas to be devoted to forests there are many problems which require the special combination of economic and of technical training possessed by the forest economist. Since the problems of this field are fairly well known, I need not undertake to discuss it. In general, it includes the economic and technical questions involved in determining the type of forest cover to be developed, the most profitable cycle, the most advantageous type of forest culture, probable expense and returns, etc.

Of peculiar significance for forest regions is the question of taxation. There has been a disposition for many years to attempt to divorce the problem of forest taxation from the general tax system and to treat it so to speak, *in vacuo*. As a result, tax reform in regard to forest lands, has made comparatively little progress for two very good reasons among others: (1) because the proposals for reform were unrelated to the established division of the revenue field as between local and state governments, the existing administrative machinery, and prevailing constitutional limitations; (2) because the line of demarcation between forest lands and other lands has not been definitely drawn. There is at present an encouraging tendency to consider these factors and also to recognize that the problem is not merely one of forest taxation as such, but a problem of remodelling the entire revenue system so as to deal with the peculiar conditions of sparsely

¹A study of this general character is being made for portions of the Western Great Plains by the Division of Land Economics in co-operation with a number of other bureaus of the United States Department of Agriculture and with a number of states.

settled areas and with types of land in which capital valuation is peculiarly difficult because of the remoteness of returns.

The half billion acres in this country suitable only for range grazing present a large field of economic research. In part, the problems belong to the field of ranch organization and management, but the land economist can be of service in critical studies of existing policies with reference to the public domain, the grazing uses of national forests, and state lands leased for grazing. The Forest Service has encountered some nice problems of valuation in its recent attempt to reconstruct its schedule of grazing fees. The respective advantages of private ownership of range lands as compared with regulated grazing under a system of public leaseholds or under the permit system also constitutes a subject on which there has been plenty of speculative discussion and some informed opinion, but not enough concrete study. There are also questions as to the principle which should govern in determining the size of holdings. What is the most profitable size of holdings is a question of organization and management, but whether we should endeavor to promote holdings of the most profitable size or holdings which will support the largest number of independent families is a question of national policy still indeterminate both for ranches and for farms, and one about which all too little conclusive and decisive thinking has been accomplished and about which also the governing conditions in particular areas are not known.

Let us consider now those problems of research connected with the areas assigned for the expansion of the farming industry. Assuming that the assignment has been made for a forest cycle or some other corresponding period, only part of the area should be employed for immediate expansion, and it should be the function of research in land economics to provide a basis of wise selection of the areas which afford the most promising opportunity. In those sections where reclamation is involved and it is necessary to determine in advance the economic soundness of large capital expenditures for reclamation before it is undertaken, there is required a synthesis of the specialized experience of the irrigation or drainage engineer, experts in the various fields of agricultural technology, and the financial expert.

Closely related to this are the problems involved in determining the most favorable conditions for land settlement either in regions requiring drainage or irrigation or in the very different conditions existing in dry farming areas or cut-over areas. To some extent conclusions with respect to land settlement can be generalized. It is possible to draw on the experience of other countries as to such matters as the relative desirability of infiltration and compact settlement, the advantages and disadvantages of public versus private initiative in land settlement, principles to be followed in selecting settlers, rates of turnover, and margins of credit. However, such conclusions must be very tentative, for the special conditions under which settlement is carried out vary widely, and each project must usually be considered on its merits.

The subject of farm land values and valuation must be recognized as

one of the utmost importance in view of the fact that the aggregate capital value of farm real estate represents from a fifth to a sixth of the total value of national wealth, that it constitutes nearly 85 per cent of the investment in the farming industry, and that the varying and fluctuating relationships of income, indebtedness, and taxation to capital values are of most vital significance, not only to the stability of the farming industry, but also to other important economic interests. This subject involves an almost virgin field for replacing a large accumulation of hypothetical assumption and dogmatic theory with the more precise and significant results of modern methods of statistical measurement.

At the outset we encounter a most inadequate supply of material for a time series. In this field we do not have access to regular and carefully compiled market reports of trade journals and other agencies such as constitute a source for price data for other commodities. Several years ago the Division of Land Economics undertook to fill this important gap in our economic material by building up a historical series of land value curves in selected counties of representative states by obtaining data on sales of farm real estate in the records of county recorders. Also much more ample arrangements are being made for supplying reliable data on current land prices and turnover based on both estimates and current sales data, as reported by returns from a list of about 200,000 farmer reporters for their school districts and by a list of 35,000 real estate dealers.

The time series thus afforded on the movement of land prices can be subjected to various statistical tests and correlated with various other economic data with a view to throwing light on the relationship of the short-time and long-time trends of land prices to the general price level, the prices of farm products, interest rates and other credit conditions, prices of particular commodities, and various indexes of volume of production and trade employed in measurements of the business cycle. Such a study of trends is also useful in the investigation of the geography of land values, and in understanding the differential forces at work in various areas.

The interrelations of farm income and farm value comprise another group of research problems of peculiar significance. At the start, it is desirable to obtain a rough measure of the relationship of annual value and of capital value in different parts of the United States. This may be accomplished in a number of ways. First, cash rentals may be employed as the purest market expression of annual values. Where real estate taxes are known and deductions can be made according to standard tables for structural depreciation and repairs it becomes possible to obtain something closely approximating net cash rental; and there is a growing tendency in cost accounting studies and in farm surveys to employ this as the measure of annual cost of farm real estate in place of some arbitrary rate applied to total capital value. We have been fortunate in having inserted in the census schedules of 1920 and 1925 questions as to the amount of cash rental. The question was not tabulated by the Census in 1920, and it was necessary to make a

special tabulation for about 175,000 farms in selected counties.¹ For 1925 the Bureau of the Census will tabulate the cash rental data and the estimated value of cash rented farms by counties, thus making possible a country-wide comparison of the relationships of rent to value. The Department of Agriculture is also undertaking by the questionnaire method to obtain annual data on the same items.

Since cash renting is not everywhere sufficiently prevalent nor are cash rented farms always sufficiently representative to afford a reliable measure of annual value, it is necessary to use other means. One of them is to employ share rentals, making deductions for landlords' expenses. Some of these unfortunately, such as risk and supervision, are not very susceptible of definite measurement. Moreover, because of the great fluctuation in crop yields and in prices, data covering a considerable number of years are requisite.

Data on annual values and on capital values, especially where available annually for a considerable period, will make possible a number of important studies such as the nature of the movement of rentals in relation to the movement of capital values, close approximation to the measurement of the capitalization of expected increments or decrements, the rate of capitalization, the influence of past experience in the determination of present values, etc.

Both annual values and capital values need qualitative analysis. For many purposes of statistical measurements, particularly income and standard of living studies, it is highly desirable to isolate the residential value. It is hoped that in the 1930 census a question on the value of the dwelling can be included.

This is merely one phase of a needful qualitative analysis of the degree of influence of the different characteristics of individual farms. By employing multiple correlation the influence of such characteristics as value of buildings, average yield per acre, proportion of crop land, kind of road, and distance from shipping point may be approximately measured. Such methods are likely to become extremely important in scientific appraisal for the purpose of calculating the differential between the value of individual farms and the predetermined level of value for the community as a whole. Questions have been included in the Census of 1925 which may lend themselves to studies of this character covering comparatively large areas. For more precise results, however, it will be necessary to rely on survey data.

The nature of the real estate market in particular regions needs thorough study and analysis in order that we may determine some of the psychological factors influencing farm land values, particularly in boom times, the extent to which the defects in market organization and information prevent the development of a uniform value level, the extent to which sales data as recorded or reported are actually representative, the in-

¹Cf. Department Bulletin No. 1224, "Relation of Land Income to Land Values," by C. R. Chambers; also article by the same author in the *American Economic Review* (December, 1924).

fluence of the demand of various classes of buyers in the market, and the rate of turnover of farm real estate and the extent to which this turnover consists of trades, forced sales, voluntary sales, estate settlements, etc., for the proportion of purchases by actual farmers is exceedingly important in determining the influence on agricultural prosperity of tendencies to inflation or deflation. Growing out of these general methods of study are the particular problems of allowing for special kinds of improvements, such as orchards, vineyards, forests and woodlots, etc.

When one considers the importance of the various lines of inquiry covering the value of farm real estate in promoting sound credit and taxation policy, in facilitating more accurate systems of farm accounting and organization, in understanding the factors influencing the prosperity of farmers, in determining the possibility and desirability of progress from tenancy to ownership, and in illuminating various controversial issues such as railway rates and the tariff, it would seem that studies would be organized in every state for the purpose of employing all of the various methods of analysis here presented in the study of the character, extent, and qualitative make-up of farm land values in each important and characteristic region.

In the field of land tenure I can only undertake to mention a few of the problems of outstanding significance. One of these, closely related to the field just discussed, is that of the economic desirability and possibility of progress from tenancy to ownership. This requires a careful analysis of the characteristics of agricultural income in various parts of the country and their relationship to the value of farm real estate on the one hand and to standards of living on the other. We have talked too much about averages. For a given number of farmers in a representative area we need to know the distribution of income. How many fail to earn enough to cover cash expenses, not including interest on actual indebtedness? How many earn cash expenses and in addition succeed in providing an allowance for interest on investment and depreciation? How do the various individuals rank in regard to the residuum available for living expenses and accumulation? How does the distribution of incomes vary from year to year and how does the same individual's position in the scale change from year to year? What is the standard of living that should be given priority over the undertaking to purchase a farm? At what level of values would purchase be justified? What credit margins would be reasonably safe, and what proportion of one thousand farmers would be expected to survive? I do not need to emphasize the importance of such studies not only for the subject of tenure but also in their bearing on credit problems and for the development of wise policies of land utilization and settlement.

The legal and customary relationship of landlord and tenant in various parts of the country is an almost endless field of research if we are to answer such questions as the following: What are the actual personal disabilities of tenancy; does it involve serious insecurity or lack of freedom in the formulation of farming policies? To what extent is compensation for unexhausted improvements needed under American systems of farming; to

what extent is the existing need provided for in practice and what conditions would favor or retard its successful introduction by legal methods? What is the role of landlords; what is their economic and social contribution to agricultural production and welfare; who are they; where do they live; what are their occupations; and what are the motives which lead them to acquire or retain ownership? The Institute of Land Economics, the Division of Land Economics, and various research workers in the colleges have contributed scraps of information bearing on these important questions, but it must be acknowledged that our information is still hopelessly fragmentary.

The extent and causes of the instability of occupancy which is so characteristic of American tenancy and which constitutes one of the strongest indictments against the system are all too little understood. Neither is it clear what measures of policy would helpfully change this condition. In spite of much dogmatic generalization we still know too little about the connection between form of tenure and efficiency in farming. Is tenancy as such responsible for inefficient farming, or is the tenant a man who would be inefficient also as an owner? Is inefficiency characteristic of both owners and tenants in a given region because of the historical development of an inefficient farming system? Is the inefficiency attributable to tenancy largely a function of instability of occupancy and might it be less apparent if tenants could be induced to remain longer on the same farm? Could the prevailing inefficiency be eliminated by a different kind of tenant contract or only by developing a wider measure of ownership?

In other departments and categories of economic life we have gone a long way since the doctrine of *laissez faire* influenced the development of the American system of allodial tenure in fee simple, but that economic product still continues but slightly modified so far as applies to farm real estate. It is probably true that it will continue to be the corner stone of our economic system, but the evils growing out of land speculation, overcapitalization, fluctuating values, instability of occupancy, absentee landlordism, sporadic concentration of ownership, and wasteful employment of land resources point to the necessity of a considerable movement toward legal limitation of rights of property. In this great field of inquiry we shall need to study critically the various forms of limited tenure that have survived the disappearance of feudalism in Europe and the various economic experiments established since the close of the European War, making due allowance for the historical, institutional, and psychological differences between America and the countries of Europe.

RICHARD T. ELY.—By land economics I understand economic relations among men that arise out of the utilization of land. If you want a formal definition, I will give it in these words:

"Land economics is that division of economics, theoretical and applied, which is concerned with the land as an economic concept and with the economic relations which grow out of land as property."

I could elaborate at length this definition, but, on the one hand, there is not time for it now, and, on the other hand, it is scarcely necessary in this audience of trained economists.

In my judgment, this field of economics is not only the latest, but one of the most important divisions of economics to be developed. This is a challenging statement and may seem like an exaggeration.

The question naturally arises, have we in land economics something new? If we turn to the general treatises of economics—and I will include my own—we find very little about land, and what we do find is confined to a few general statements which in many respects are misleading. Land and the improvements which go with it, included under real estate, represent more than one-half of the wealth of the United States and a large proportion of the wealth of the whole civilized world. If we examine its economic utilization in detail, as we have examined the economics of railways and of banks, is it not natural to suppose that we should get a great deal of new truth both of practical and scientific significance? Another economist has said that land economics is more important than economics of railways or of banks. Taking railways, he points out that there are comparatively few people who have much to do with them administratively, whereas pretty nearly everybody is concerned with land as buyer, seller, and utilizer.

Naturally I have asked myself the question, is what we are discussing under land economics, after all, new as well as significant? I have had graduate students from the leading universities at Wisconsin and at Northwestern University and also at Cornell when I taught there in the summer session two years ago last summer. Certainly what was presented under land economics was to them new, whether or not it was significant. I believe I may say that, generally speaking, they did regard it of major importance. One test of the significance of land economics is pragmatic in character. We have been training men in land economics, and we find a demand for their services—in fact, a demand far in excess of the supply. These men find things to do, for which men are willing to pay salaries, and their training is a preparation for doing these things. One man had a training, and he became secretary of a real estate board and transformed its activities in most desirable and helpful ways. His training enabled him to give a new character to its activities. Another man has a training, and he finds a field of usefulness in the real estate department of a railway. Others find employment in schools and universities teaching land economics.

In land economics we are dealing with all sorts of practical everyday questions like home ownership and tenancy in city and in country. We have our laboratories in which we try experiments. I refer especially to "Sunnyside," the urban laboratory which is in process of construction by the City Housing Corporation, and the Fairway Farms Corporation, whose operations at present are confined to Montana. We try to reach predetermined ends, and that makes the operations of these two companies real laboratories. The purpose of the Institute is to discover standards and methods of general application.

In land economics our work is largely that of synthesis. A good deal of work has been done in the economics of forestry, also in farm tenancy. A good deal of work has been done in the field of land credit. A little research has been conducted in the field of urban home ownership and

tenancy. Some important studies have been made in the utilization of mineral resources and conservation generally. In land economics we put together the separate studies, and we find that synthesis yields a great deal of new truth that, in my opinion, has the highest significance. I do not think that Professor Fetter has exaggerated when he says that in land economics we are dealing with problems of national welfare and national survival. Dealing with these questions practically, attempting to solve the questions that arise day by day among men in their utilization of the land, I think that we get an enrichment of economic theory. And as I study the history of economic thought it seems to me that the most worthwhile theory has been the by-product of attempts to solve practical, everyday problems.

I have simply thrown out a few thoughts, and I want to close by presenting to you the main features of a new book, written by my associates, Messrs. Herbert B. Dorau and Alfred G. Hinman, entitled *An Outline of Urban Land Economics*. This is the first book on urban land economics and treats such topics as: The Development of Urban Economy; Urban Land Utilization; Public Control of Urban Land Utilization; Urban Land Tenure and Tenancy; and Urban Land Values and Valuation. Under each of these headings here listed there are a number of significant topics that receive special consideration. The book represents a distinct departure from any previous work done in this field and it is hoped that its publication will stimulate further scientific study in land economics.

THE FEDERAL RESERVE SYSTEM

OWEN D. YOUNG

I have come here primarily to express my appreciation to you for the honor of having been chosen a Vice-President of your Association for the past year. After something like fifty years of experience in this world I have learned that the honors which one appreciates most are those which are the least deserved. Therefore, I want you to know how grateful I am for that which you have conferred upon me.

My chief criticism of economists is that they regard economics as an exact science like mathematics and physics. They base it on certain well-known laws of human action and reaction. The trouble is that they fail to take account of other forces lying outside the field of economics which influence action within the field. If economics were an exact science, I would never have been the Vice-President of this Association. I hold that office only because of friendships and loyalties which are never mentioned in your books but which are powerful deflectors of the rules which you lay down.

Secondarily, I come to this meeting because of my interest in the Federal Reserve System, and that is your subject this morning. That the Lord takes care of drunken men and the United States was never better shown than in the creation of the Federal Reserve System immediately preceding the world war. It was a useful, and I think an essential instrument of service during that trying period. After the war, although its action was frequently criticized—severely criticized—it was still helpful.

Post-war deflation is never popular and is never carried out without mistakes. It is especially unpopular in a country which has large gold reserves—which can provide an ample supply of credit and which has an overproduction of self-satisfaction arising from its achievements in war and from the adulation of grateful associates. We were then the Red Grange of the nations. That was trying both for our head and heart. It did not create a taste for sacrifice and deflation. On the whole, under these conditions, I think the Federal Reserve System came through pretty well and should be given credit for its achievements. After the game was over came the recognition of hard economic facts. One of the facts was the disturbed exchanges and the impaired currencies of the world.

When I was in Berlin and asked the representative of German labor what the Dawes Committee could best do for labor, he answered, "Give us a sound currency." He said, "Do you realize that this must be done basically as a human need; that our workers have not been able through any exertion, sacrifice, or saving to provide a fund which would guarantee their families a doctor or a nurse in case of sickness." They could not even guarantee their loved ones a decent burial in case of death.

I had always thought of currency merely as a piece of the machinery of finance, the medium of debits and credits. Never before had I realized the relation of currency to life. I venture the statement that it is more important to the United States of America to restore the currencies of the world to a stable basis and make them sacred than it is to collect our foreign debts.

We must remember that when the Federal Reserve System was established, this country was still a debtor nation having no great responsibility except to pay its debts. England was the great creditor nation, and it was her obligation to see that the mediums of exchange of all countries were on a basis which made credit possible and which made loans secure. Now that situation has changed; the responsibility is ours. We have the gold of the world which, after all, is the guardian of sound exchange. Whether gold be necessary or not as the basis of currencies, there is, I know, much debate. That it is in fact their best guarantee, taking account of the historical and psychological influences surrounding it, can scarcely be questioned. In times of rehabilitation, the world cannot afford to try new experiments. If this be true, then the gold resting in the vaults of America is a trust fund for the currencies of the world and its wise administration is our responsibility.

I speak of that responsibility here because this is the proper place. If I were speaking of the responsibility for power development, if I were talking about the problem of putting more power back of the worker in order that his production and wage might be increased, I should speak to the power people. That responsibility is theirs. So each of us in our own field in a Democracy must see to it that America acts wisely. You must see that she acts wisely in this international field of currency and finance. You must teach us in the face of discouragement on your part and stupidity on ours. You must go forward firm in the faith. You must

be clear and simple in your statements so all of us may understand. You must make a great Democracy function wisely in the most complicated field which popular government has been called upon to face. More than that, you must make it function quickly. Much has been said of late of the responsibilities on the scientists of the world to maintain our great advance. Much has been said about the responsibilities of the schools and the churches to see to it that the great powers which science has put in our hands are technically well administered and with moral responsibility. I venture the statement that in no field is the responsibility so great as on the economists of this country to see that in this great new role of the creditor nation America acts wisely, not only in her own interest, but for the safety and well-being of civilization itself.

When you are considering the Federal Reserve System I hope you may think of it in the light of these changed conditions. I hope you may regard it as no longer a piece of machinery only for the mobilization of domestic reserves, or even for the financing of our foreign trade. It is now something more. It is the instrument of the people of the United States through which, in a large measure, they are to discharge their duty as trustee of the world's gold supply and as custodian of the safety and reliability of the exchanges of the world.

During the coming years, the question of whether or not the charter of the Federal Reserve Bank is to be extended, and if so, on what terms and conditions, will be one of our most important political and economic problems. That is a field in which your Association has grave responsibilities and must meet them. Personally, I believe that the Federal Reserve banks should have an indeterminate charter such as we have learned to grant to public utilities. That question of extension of charter should be met on its merits quite independently of the question of amendments to the act. Let the amendments be considered and made as experience may show they are needed. It will be unfortunate to consider the two questions together.

Perhaps I should not have presided at this meeting. I may not be wholly impartial. I frankly confess after an experience of three years as a director of the Federal Reserve Bank of New York to a bias in favor of the Federal Reserve System and the general way it is being operated. It has been a great promoter of our foreign trade, especially through bankers' acceptances. I remember seeing a list of the commodities moved by means of bankers' acceptances which the Federal Reserve Banks bought in March and April of this year (1925), and the figures are so impressive that I venture to repeat them. There were two hundred and fifty different export commodities financed. The largest were:

Cotton	\$75,000,000
Grain	27,000,000
Sugar	20,000,000
Coffee	18,000,000
Silk	15,000,000
Wool	11,000,000

Hides and skins	7,000,000
Copper	7,000,000
Lard and meat	5,000,000
Flour	5,000,000
Tobacco	4,000,000
Rubber	3,000,000
Cotton manufactures	2,000,000
Wood pulp	2,000,000
Lumber	2,000,000
Furs	2,000,000
Farm implements	1,000,000
Others	41,000,000

I mentioned before the effect of unstable currencies in foreign countries and widely fluctuating exchanges on foreign trade. It is well illustrated in the case of our trade with Germany. At the time when German currency was declining rapidly in value American exporters of cotton found it necessary to send their goods on consignment and store it in warehouses in Bremen, from which German manufacturers could buy it from week to week and even from day to day, a few bales at a time. There was no possibility of making the usual contracts in advance. As a consequence, our exports to Germany were greatly reduced, as is indicated by their increase since stabilization. Our exports to Germany in the fiscal year 1923 were \$293,000,000; in 1924 they were \$378,000,000, and in 1925 they were \$464,000,000.

I commend the co-operation of the Federal Reserve System with the central banks of other countries in their endeavor to establish and maintain sound currencies. If we do our job well that will, in the future, be an important additional function of the system. It will require on our part intelligent and courageous leadership, and most of all, it will require understanding on the part of our own people. You are the trustees of our fund of understanding just as America is the trustee of the world's gold supply. You must execute your trusteeship well in order that we all may understand and act. If we fail, it will be because you have failed. I have every confidence in the vision and spirit and wisdom of the American people on any question however difficult when once they are adequately informed. It is the purpose of such a meeting as this to promote our own understanding and theirs.

THE RECENT WORK OF THE FEDERAL RESERVE ADMINISTRATION

By H. L. REED

Cornell University

It has been observed frequently that, in the early years of its life, the Federal Reserve System was incapable of evolving any principles of credit control which could be regarded as suitable for permanent application. In the first few years of its existence, problems of organization and the work of familiarizing the banks of the country with the nature of its operations demanded primary attention, while later, in the war and post-war period, the requirements of the Treasury were decisive in determining the nature of many of its activities. But after industry began to recover from the disaster of 1920, we should expect to find the elements of such a policy formulated and enunciated. It is the purpose of this paper to review the events of this recent period in the endeavor to ascertain what progress has been accomplished in this direction. But, first of all, some attention must be devoted to certain matters of organization and machinery. No criticism can be fair which does not take account of the kind of a mechanism bequeathed the Federal Reserve administration to operate.

In the Federal Reserve System, hopes of harmonious operation on the part of the different Reserve Banks must rest in the first instance upon the Federal Reserve Board. It, of course, is conceivable that leadership might be wrested from the Board by one or several of the district directorates, which would undertake the initial work of formulating policies, and, then, utilize the Board merely as a medium for communicating their findings to other Reserve Banks. But as long as the law remains as it is, it is not probable that such a solution would commend itself to future Boards, and such division of responsibilities would undoubtedly give rise to even greater difficulties and delays than, as shortly will be shown, the present Board has been obliged to contend with.

As regards the composition of the Board, the first difficulty to be emphasized is that the Board is a committee, and is consequently subject to all the unwieldiness of committee organization. It is composed of men who have been trained in different industrial activities and who have resided in different geographical sections. It is confronted by problems that lie at the very core of much that is controversial in scientific circles, and whenever wide differences of opinion exist it is inevitable that slow and tedious diplomacy must be exercised before substantial unanimity of thought can be gained and aggressive

action taken. Continuous concessions of judgment must be made in a field in which history records few successful compromises. Some such idea as this was expressed by Mr. Dawes in his insistence that the office of the Comptroller be not abolished and its duties assumed by the Federal Reserve System.¹

"The office of the Comptroller of the Currency has to be organized for quick and summary decisions. A mob of depositors is never complacent enough to await the deliberations of a town meeting. If the Federal Reserve Board is composed of the men of the ability and force of character that has typified this Board in the past, each member, in self-respect, will insist on expressing himself and impressing his personality on any proposed methods for relief, and the fire wagon, if it arrives at all, will approach in orderly and dignified fashion long after the last wisps of smoke have floated away and the ashes cooled. Please understand that this statement would still be made if absolute assurance could be given that the ablest men in the world would always sit on this Board. 'Boards is Boards.' "

It should be noted, moreover, that this criticism is general and not specific. It makes no reference to the lamentably rapid turnover of the Board's membership, or to the recent success of a certain bloqué in securing a mandate from Congress providing for an increase in its numbers. Neither does it call attention to the political atmosphere in which for the last few years it has been obliged to do its work. By this I refer to the hostility of certain members of Congress, several of whom have proposed bills of the following tenor:

"The rate of discount and rediscount to be charged by Federal Reserve banks shall be 2 per cent per annum. No deviation from this rate shall be permitted except by authority of Congress."

These difficulties might be classified as internal, as referring to the formulation of decisions within the Board itself. But when the task arrives of rendering these decisions effective in the activities of the Reserve Banks, further causes of delay and obstruction arrive. In matters of discount rates, the Board is only given power to review rates fixed by the various district directorates. It is possible that this power of review might be developed into a virtual authority to fix rates. By calling for frequent rate applications, and by refusing to approve of rates not acceptable, the Board might subject the district bank to the alternative of ceasing discounting or accepting the Board's rate. The Board is also permitted by statute to remove district directors. But aggressive action of this character, frequently employed, would destroy the needed spirit of co-operation between the various bodies which make up the Federal Reserve administration. The ordinary work of the Board must be of the persuasive, informative, and discus-

¹Cf. *Commercial and Financial Chronicle* (Oct. 27, 1923), p. 3044.

Much of the work of the Board apparently has had to do with the organization of machinery to lessen friction between the different directorial and executive bodies. Frequent conferences are called with the governors, the Federal Reserve agents, and other district officials. The meetings of the Federal Advisory Council offer other opportunities for the creation of a general sentiment. In the matter of open market purchases, we are informed that progress in harmonizing the activities of the different Reserve Banks has been attempted by the formation of a representative committee. There may also be available various devices for swinging into line Reserve Bank directorates of opposing judgment. Rate changes may first be announced by one influential Reserve Bank, thence by another, and friendly pressure later put upon the remaining Reserve Banks to bring their rates into harmony. In noting further the forces contributing to unified activity, reference should be made to the organization within the Federal Reserve Board of the division of Research and Statistics. The facilities of this division for gathering, analyzing, and interpreting economic data are so vast that, in the course of time, it is possible the various district directorates and the Federal Reserve Board will come to depend largely upon the findings of the same body of analysis. Tact, of course, will require that this division be careful to refrain from making recommendations of policy, but it is something to have available a permanent body of investigation, a body moreover which may be developed to help co-ordinate the research activities of the various district banks. In view, furthermore, of the rapid changes in the Board's membership, it is to be hoped that this division will accomplish something in the direction of providing a point of contact between Boards of different personnel. In this, it is particularly to be desired that the lessons of past experience be not forgotten.

But despite such devices for securing harmony in operations, it must be admitted that the Federal Reserve administration has not been constituted primarily to effect prompt decisions and to hasten their application by the Reserve Banks. The question thus arises whether we should condemn the system and advocate a thorough overhauling of administrative machinery. To this it is our opinion that a negative answer should be given. We already have quite as much centralization in banking authority as appears acceptable to the American people and to remodel what has been slowly and laboriously constructed would undoubtedly mean the loss of much that has been accomplished. The obstacles in the way of prompt and unified decision must be considered as a price we must pay for the continuation of our banking traditions. But the test of the workability of the present machinery must be found in the accomplishments and achievements of

the system. Accordingly, let us review first, the main currents in the period which begins with the summer of 1921 and closes with the industrial reaction of the spring of 1923, in the endeavor to ascertain whether therein the activities of the Reserve Banks were salutary or contributory to disaster. Account later will be taken of the more recent activities of the Reserve Banks.

This first period may be characterized briefly as one of exceedingly rapid industrial recovery. The Federal Reserve Board's index of production in basic industries (corrected for seasonal variations) displayed an advance from less than 80 in the midsummer of 1921 (1919=100) to more than 120 at the close of the first quarter of 1923. Less than two years witnessed an improvement of more than 40 points, or 50 per cent of the 1921 total. Other production and trade statistics support similar conclusions. The Harvard adjusted index of the volume of manufacture rose from a low of about 72 in the summer of 1921 to 117 in April, 1923, an increase of 45 points, or a gain of 62 per cent of the 1921 total. The Harvard B curve, though constructed in a dissimilar way, presents in general a substantially identical impression of rapid improvement. It is roughly correct to state that this advance was interrupted by no reverse movements of any considerable duration. While it is no doubt true that these indexes exaggerate the increase in the aggregate of industrial activity, there is no mistaking the general rapidity of the recovery.

We may now inquire as to the part played by the Reserve Banks in providing the credit for this industrial revival. On June 30, 1921, the total earning assets of the reserve banks were two billion and fifty million dollars. Thereafter there were experienced few reversals to a downward swing which by July, 1922, had reduced the total to slightly more than one billion dollars. Following the summer of 1922, there was a sufficient increase to bring the total up to about one and a fifth billions by April, 1923. But the net result of reserve activities during this period of improvement was a reduction by the spring of 1923 of about a billion dollars in earning assets.

In the elements composing total earning assets, rather dissimilar trends manifested themselves. On June 30, 1921, discounted bills totaled one and three-fourths billions of dollars. Thenceforth, there was a more or less continuous decline until on September 30, 1922, a low for this period was reached with less than a half-billion of discounts. By the end of April, 1923, the reversal of this course had brought discounts above seven hundred millions. On the other hand, open market purchases of bills, municipal warrants, and United States securities followed a somewhat antithetical course. On June 30, 1921, they were roughly three hundred millions. As discounts declined these

holdings were increased until by June 30, 1922, they reached the figure of seven hundred and fifteen millions. Holding to about this figure until the close of 1922 they then began to decline until by April 30, 1923 they had fallen to a little more than four hundred and fifty millions. In other words, it appears that by means of their purchase operations the influence of the reserve administration was exercised to lessen the rapidity of their withdrawal from the market during the months of declining discounts, while on the other hand, when discounts began to increase open market holdings were diminished. This assumption is further supported by noting the changes effected in discount rates in this period. In June, 1921, the average rate charged by the Reserve Banks on discounted bills was 6.14 per cent. Thereafter, the rates were so reduced as to bring the average to 4.25 per cent in January, 1923. By April, 1923, the average rate was 4.50 per cent. It thus appears that lower rates went along with falling discounts and increasing open market purchases, while higher rates were exacted when discount demand increased and open market purchases were permitted to decline.

In relating these operations to trade and production statistics, some bewilderment is at first occasioned by observing the apparently inverse correlation between the demand for Reserve Bank credit and trade activity. The divergence between the movement of these two curves is too great to be explained in any large part by plotting a lag in the curve of bank credit relative to that typifying trade or production activity, by noting the shift from demand to time deposits carrying lower reserves, or by asserting the gradual liquidation of frozen credits in the months following the middle of 1921. But, when the figures of member bank advances are analyzed, it appears that funds to finance this revival were obtained from other sources than the Reserve Banks. Thus, the total loans and investments of all national banks increased almost six hundred millions between June 30, 1921, and December 29, 1922, while in the same period total deposits increased by more than two and a fifth billions of dollars. Clearly, member banks were gaining loaning power from some source outside the Reserve System.

This external source is to be found in the immensity of gold imports. International trade and financial movements were such as to bring to this country between September 1, 1920, and December 31, 1923, net imports of gold exceeding one billion three hundred millions of dollars. This gold, in large measure deposited with Reserve Banks, enabled member banks to reduce greatly their borrowings from Reserve Banks, even though their own advances and investments were being increased. Reserve Banks were being driven from contact with the market, and

member banks were being put in a position to act independently of the Reserve Banks. To resist this tendency, open market purchases were engaged in. But this must have been done only with many misgivings. Trade recovery was so rapid that it was easily apparent the existing rate of progress could not long be continued before the limit of physical recuperation power would be reached. If stock and commodity speculation should base hopes upon the continuation of the rate of recovery, violent reaction must be the inevitable outcome. It is, therefore, important to inquire whether financial analysis would disclose any special factors justifying the volume and the type of activities in which the Reserve Banks had been engaging.

To begin with, there was much ground for regarding the rapidity of the recovery as a healthy reaction from the subnormal activity of 1920-1921. The severity of the liquidation of 1920 undoubtedly prepared the industrial system for a more rapid recovery than could reasonably have been expected if the decline of prices and the interruption of production after the spring of 1920 had been more mild and gradual. It could not be expected that the country could long continue to meet its requirements with such greatly reduced production and manufacture. To impose the check of more costly credit might mean, particularly from the standpoint of discouraged business sentiment, the unnecessary prolongation of the stage of depression. Furthermore, with respect to its relation to consumption demand it did not appear until late in the period that the renewal of activity was creating an unhealthy situation. Analysis of retail sales at the close of 1922 indicated that the movement of goods to the ultimate consumer was not being greatly impeded and that there was no excessive accumulation of stocks of basic materials.¹ While wholesale prices were rising somewhat, the advance was slow and did not compare with the improvement in output. The available evidence seemed to indicate that such price changes as were occurring were tending to reduce the admitted maladjustment of prices, and to that extent could be regarded as assisting in the improvement in production. As stated in the *Bulletin* for November, 1922:² "Price readjustments which stimulate production have a different significance from price advances which continue after industry has reached its productive capacity and when further advances register merely competitive bidding." In view, moreover, of the rapid increase in output it did not appear likely that a runaway market would soon develop. In a short period the new production would manifest itself in an enlarged flow of goods into consumption channels and thereby tend to retard any general sharp ad-

¹Cf. *Federal Reserve Bulletin* (March, 1923), p. 280.

²p. 1267.

vance in prices. Finally, reports were more or less unanimous that business sentiment was not becoming unduly optimistic, that it was mindful of the lessons of 1920 and was unwilling to engage in extensive forward buying or to permit the accumulation of excessive inventories.

As to whether it was necessary for the Reserve Banks to engage in such extensive open-market operations, there of course is ample ground for controversy. It is our opinion that the Reserve Banks displayed too great an unwillingness to permit the reduction of their earning assets below the point necessary to pay expenses and meet dividend demands. At this time, our view was that it would have been preferable for them to withdraw from the market more largely and require trade and production to obtain such further credits as might be needed by the process of discounting. But there then seemed little ground for believing that much mischief in supplying funds for a violent readjustment of prices could result from the continuation of the purchase operations.

In the early months of 1923, some occasion for alarm was noted by the Reserve Banks. Slight fears were expressed that the advance in production was too rapid to be sustained and that it would be desirable to test the soundness of the credit advances of the banks. Attention was called to the fact that in relation to pre-war movements the price advance was becoming considerable. As previously noted, purchase operations were reduced in the early part of 1923 and in February the discount rates of the Reserve Banks of Boston, New York, and San Francisco were advanced from 4 to 4.5 per cent. While it is not altogether clear that this action was motivated by other considerations than to bring the rates at these banks into line with those prevailing in other districts, the decline in open market purchases furnishes some indication that it was based upon misgivings with respect to industry's legitimate need for further increases in credit. These rate increases were the first that had been initiated in more than two years. Furthermore, they were virtually the first that had been undertaken in the history of the reserve system which ignored considerations of the sufficiency of reserve ratios. In our view, they represent the beginning of a real credit policy.

Later events in the operations of Reserve Banks can be sketched only briefly. After the spring recession of 1923 imports of gold became even larger than for the preceding year. In 1922 the net imports of gold totaled \$238,000,000; in 1923 the net imports were \$294,000,000. Not until December, 1924, was there a net outflow, but for the entire year of 1924 the net inflow was \$258,000,000. The effect of these gold imports became progressively more important in weakening the Reserve Banks' contact with the market. As this gold,

deposited with Reserve Banks, permitted member banks to lessen their borrowings, further imports supplied them with new reserves upon which credit could be based without resorting to rediscounts. Moreover, this problem of keeping in contact with the market was increased by the general tendency of industrial activity to decline from the peak reached in the spring of 1923. With the exception of certain brief periods of improvement, the Board's corrected index of production in basic industries declined until by the summer of 1924 it had fallen below the calculated normal, a net decline from the peak of 1923 of about 30 points. The Harvard index of the volume of manufacture shows a similar fall of about 30 points from the 1923 high to the low of 1924.

While it would not be expected that the demand for reserve credit would sharply decline immediately after the spring of 1923, such an outcome was sooner or later inevitable. It is not surprising, therefore, that, despite a gradual reduction of discount rates from 4.5 per cent at all reserve banks in the early months of 1923 to a range of from 3 to 4 per cent in 1924, discount demand should weaken greatly. Holding up well until the close of 1923, total bills discounted fell between five and six hundred millions of dollars before the late fall of 1924.

The Reserve administration was thus again compelled to choose between losing contact with the market and increasing its open market holdings. While total earning assets were permitted to fall from the one and a fifth billions reached in the spring of 1923 to about eight hundred millions in the summer of 1924, the evidence points to the firm desire to avoid loss of contact with the money market. The figures seem to show that total purchases were kept as high as could be without reducing discounts to an insignificant figure. This interpretation agrees in general with statements advanced in the *Annual Report of the Federal Reserve Board for 1924*.

With respect to that part of the policy which has to do with the decline in discounts rates, we have little disposition to quarrel. It appears to us that this was a period when it would have made relatively little difference what rates were exacted. The general hesitancy in business and the lack of the spirit of speculation demanded no imposition of a money rate check. There may also be some truth in the assertion that the lower the figure to which rates were got in these months the better, since subsequent advances, which might later be necessary, could be the more rapid if they began at a low point. But the policy of continuing extensive open market purchases in this period may properly be called into question.

The general attitude of the Reserve administration is possibly ex-

pressed by the following statement in the report of the Board for the year 1924:¹

"By these purchases the reserve banks placed themselves in a position, through the subsequent sale of securities, in case it should become desirable, to cause member banks to discount and to bring a larger part of the outstanding reserve bank credit under the influence of the discount rate."

To us it appears that no such result could be anticipated with any high degree of confidence. If the funds thus disbursed should become redundant, if in other words the average rapidity of circulation of the dollar was to be permitted to fall, member banks would be in a position later to act independently of the reserve banks in supplying increasing credits without recourse to rediscounting. A more rapid circulation of money or a more intensive utilization of member bank resources must make less necessary, at a later date, extensive discounting. Clearly, unless this policy was to prove futile, the reserve advances must be absorbed somewhere. If not in rising prices, or proportionately in enlarged production, where? In reply to this query, there was occasionally advanced the unofficial statement that the securities' market would absorb an enormous quantity of funds, and that security buyers could be expected to assume whatever risks the later withdrawal of these funds might create.

If this were the thought of the Reserve administration, it is our desire to attack it vigorously. We do not believe that the securities' market can be regarded as an independent reservoir into which a large volume of funds can be conveniently poured without incurring the danger of weakening the general financial structure. The types of securities purchased by the Reserve Banks are precisely the types that banks acquire in their investments of surplus funds. Their pressure would be exerted immediately, and we believe with right, if later extensive sales should appear to restrict the market for these holdings. It furthermore is no doubt true that investment sentiment is to an enormous extent manufactured in New York City. This sentiment is continuously conveyed in trade operations to the rest of the country, and in this center a large number of financial services are prepared and circulated. The New York promotion profession is normally capable of devising all sorts of new offerings for distribution to the rest of the country, provided the funds seem available. Easy money is tremendously important in encouraging such activities. In other words, it appears that the policy of the Reserve Banks in these months was to assist Wall Street in rigging the market for a campaign of "distribution." A reversal of purchase operations by the Reserve Banks must create tremendous opposition and render difficult the later adop-

tion of such restrictive measures as changed financial conditions might require.

We, accordingly, do not believe that in Federal Reserve circles there would be a disposition to quarrel with this conclusion. Rather, the underlying motive for these extensive purchases must be of another character. It very likely must be found in the desire of the Reserve Banks to derive sufficient earnings to meet expense and dividend requirements.¹ Possibly, the Board was less inclined to admit this explanation than the individual reserve directorates, but found it difficult to convince the district managements, more directly concerned with the earnings' question. Furthermore, reliance may have been placed in the hope that later events would soften the problem of maintaining market contact and that if so it would be better to avoid incurring the unjustifiable criticisms which ill-informed critics of the reserve system would make an account of the failure to earn dividends. The upward secular trend of industry's credit demands, and the anticipated outflow of gold, which as a matter of fact did take place each month from December, 1924, to June, 1925, and thereby reverse the former movement, may have been relied upon in the decision to wait and hope for less difficult problems in the future and not raise the earnings' question.

This explanation, if an accurate expression of the administration's thought, seems of doubtful logic. If contact with the market could be expected to be resumed later by the force of future gold withdrawals and growing trade demands, temporary losses in earnings could be

¹Since the open market purchases complained of were those taking place in a period of falling credit demands by business, I do not see how the motive could lie in the international situation. I take it for granted that the Reserve administration was not desirous of going so far as to encourage domestic price inflation, but did hope for relatively low discount rates here in order to shift international borrowing from centers feeling the strain incident to the attempts to stabilize the gold values of their currencies. Cyclical movements and the inflow of gold were working toward lower rates here anyway, and it is doubtful if the extra funds poured into the market by the section fourteen could have much permanent effect in reducing money rates here. To the extent at least that these funds were absorbed in speculative activities, which might not otherwise have been undertaken, the lowering of money rates was not encouraged. At any rate, in the endeavor to assist in the stabilization of foreign currencies, it would be piling it on a little thick to unload hundreds of millions of dollars of unneeded funds in the domestic market in the hope that in some indirect manner a small portion would reach Europe. To the extent that our funds were desired by European central banks, direct purchases of a much smaller amount of foreign bills by the reserve banks would seem to be more efficacious, and in so far as foreign business corporations required the funds the proper method would seem to lie in the encouragement of foreign offerings to our investors. These remarks would not apply to a situation in which money rates tended to be higher here than abroad. But my attack has to do with the period following the spring of 1923, and, moreover, is concerned with the reserve banks' open market purchases only. It has nothing to say about low rates on rediscounts, the demand for which might or might not have been considerably larger if open market purchases had been of smaller volume. The way to have found out would have been to cut down the amount of purchased bills and observe the ensuing discount demand.

withstood. It would seem to have been far wiser to depend upon the surplus earned in the past, or even to pile up a deficit, than to continue the program of saturating the stock and bond market with easy funds.

With this partly adverse criticism of recent Federal Reserve policy, we may now raise the final question whether extensive changes in the Federal Reserve machinery should be demanded? Should such radical measures be supported as would remove from Reserve Banks to member banks a portion of their legal reserve moneys, and furthermore prohibit the issuance of Federal Reserve notes except against the collateral of commercial paper. To the questions raised by these proposals to limit the power of the Reserve Banks to expand currency and credit, only brief attention can here be devoted. In behalf of this proposal, there is the strong presumptive argument that it is not wise to grant great power of expansion to a machine the control of which is rendered so difficult by the diffusion of authority between different directorial bodies. As earlier argued, our traditions are hostile to any great centralization of financial control. It therefore seems reasonable to insist that present powers of currency expansion be curtailed. Such power, without more highly centralized control, seems dangerous. But, on the other hand, there is much to fear in these proposals.

Extensive alterations in machinery must have the effect of causing the loss of much that has been learned in past experience. Lessons of the past become less clear, the application of principles more difficult, when comparisons no longer apply so directly. Policies, that seemed correct at one period, would be less likely to be applicable at another. Future improvement can best be expected by leaving the machinery substantially as it is and by proceeding in the task of developing a spirit of such fair criticism as will render it easier to base discount decisions upon the scientific analysis of trade and production requirements. Despite the apparently frequent subordination of economic judgment, hope should not yet be abandoned that the policy of reserve control, as enunciated in the report of the Federal Reserve Board for 1923, can be rendered effective.

With respect to the economic validity of this pronouncement, there must of course be much difference of opinion in scientific circles. In our view, the development of the underlying thought is, in general, sound, and until our knowledge of trade fluctuations improves there does not seem adequate argument to warrant its rejection. In particular, we commend the refusal of the reserve administration to accept as the dominant principle the commonly voiced suggestion that reserve rates be kept normally above the market. As frequently

pointed out, in our market there is no single rate. Wide differences exist between the commercial paper, the bank acceptance, and general line-of-credit rates. It is the latter which are the most important in supplying the requirements of industry and commerce, and these rates undergo relatively infrequent change. Tightness in this market is more often represented by refusals to make loans than by increase of rates. To follow such a rate would give relatively little indication of the period when production and trade require the restraining influence of dearer credit. Furthermore, rates of member banks and rates of reserve banks are two different prices. There is no necessary connection between them. It cannot be asserted that it is normally necessary for there to be any fixed margin between them to render extensive rediscounting unattractive. Final solution can only be achieved by endeavoring to relate credit expansion more closely to the normal increase in production.

Neither do we quarrel with this pronouncement in its refusal to make price stability the ultimate test. To attempt this would be to aspire to the impossible, and if the price level could be controlled by reserve activities, special factions would continuously impose excessive pressure upon the Federal Reserve administration. Various geographical sections and special industrial groups would always assert that the prices of their products are too low, and that their increase should be attempted by Reserve Bank activities. On the other hand, production indexes are constructed on the basis of aggregating the country's total. Their utilization could not be so easily interpreted as applying to the situation in individual industries and geographical sections.

But while we desire to repose confidence in the proposal to rely upon the disclosures of production indexes, we must not overlook the many opportunities they afford of mistaken interpretation. Too frequently the explanation runs merely in terms of maximizing production during the current period of time. But since advancing prices have such a stimulating effect upon trade activity (according to Professor Fisher, price changes explain almost the whole of trade fluctuations) such a policy would often seem to demand easy money until the peak of the boom stage has been closely approached. Advancing prices, by encouraging the speculative spirit, also lead toward the excessive accumulation of inventories. Furthermore, we have too often been provided with the explanation that the time to put a stop to credit expansion is when the limit of output, in a physical sense, has been reached. While few would disagree with its direct statement, it is a dangerous formulation which would convey to the careless critic the impression that a credit check is not necessary until the maximum

physical output has been reached. In many periods, long before any clearly discernible limit has been reached to our powers to increase production in a physical sense, production may develop so rapidly as to necessitate its later violent reaction. The curve of production may merely increase at a faster rate than consumption demand can be expected to develop, and result in the accumulation of excessive stocks. Even if related properly to consumption demand, it may progress at a rate too rapid to be long sustained. In all this we admit that it is no ideal solution which may demand a credit check upon production while consumers' wants are unsatisfied. But the Federal Reserve System was not established in the hope and for the purpose of developing an automatic and continuous equilibrium between production and consumers' demand. That far-reaching achievement must be otherwise attempted.

Closer inspection of the Reserve Board's explanations of individual situations indicates, however, some recognition of the danger that these various maladjustments may interrupt the course of business. Significance should here be attached to the attention devoted in current issues of the Bulletin to stock and inventory accumulations, and to various statistics related to consumption demand, such as employment figures, and department store and mail order sales. In the pronouncement of 1923 itself, although the emphasis is not to our liking, there is to be found acceptance of the significance of these factors. Now that the problem of maintaining contact with the market is tending to become less acute, we may expect further progress in developing a discount policy more in accord with the general spirit of the 1923 pronouncement. The help that can be rendered by economists is to criticize sharply any activities that do not seem to be in harmony with this policy, to insist that there be more complete explanations of the reasons for Reserve Bank activities, and to demand that the Federal Reserve Board be composed more largely of men capable of appreciating the significance of this type of analysis. To us, this emphasis seems so vital that we do not believe interest should be diverted to problems of remodeling the mechanism of the Reserve System.

INTERNATIONAL ASPECTS OF FEDERAL RESERVE POLICY

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During the last two or three years some rather extraordinary developments in the credit situation have directed attention to Federal Reserve policy, and have raised doubt in the minds of some as to the wisdom of recent action. The main developments that have given rise to these doubts are as follows.

By the middle of 1922 the huge indebtedness of member banks to the Reserve System, the repayment of which had absorbed most of the inflowing gold for the previous period, was largely paid off. Throughout 1923 and the greater part of 1924 gold continued to flow into the country in large volume. Early in 1924 money rates began to fall rapidly and by the middle of the summer commercial paper rates had dropped to a level which had seldom been reached during the previous twenty years, and New York market rates fell below London rates.

During the last two years reserve rates in principal money centers have been maintained at low levels. The New York Reserve Bank rate was reduced during 1924 successively from $4\frac{1}{2}$ to 4, to $3\frac{1}{2}$, and finally in the late summer to 3 per cent. As a result of these reductions the deposit rates of New York commercial banks which had been regulated by the Reserve Bank rate dropped to a point that threatened to disturb the deposit relations with correspondent banks and the Clearing House banks felt compelled to amend the rules governing these rates and to make maximum deposit rate changes subject to action by the Clearing House Committee.

During 1924 the Reserve System through its open market operations in United States securities placed in the market more than four hundred millions of dollars, and while the tangible effects of these operations upon the volume of funds in the market was largely offset during the middle of the year by the reduction of member bank borrowings and in volume of bills bought, the net influence was believed to be in the direction of easier money.

The purpose for which a large amount of the new credit made available by member banks, has been used, during and following this period of easy money, has to some offered further reason for questioning the wisdom of our credit policy. From June, 1924, to June, 1925, loans and discounts of reporting member banks in leading cities expanded over one billion dollars, actual increases in commercial loans during this period being only 12 per cent of the total, the remaining 88 per cent being loans on securities. Reporting member banks' investments increased close to \$700,000,000; and brokers' loans reached a high peak.

Contemporaneously with this use of commercial bank funds for non-commercial purposes has appeared a speculative spirit in some branches of business. The biggest construction boom in our history has recently threatened to outrun the reasonable needs of the community. Some aspects of the real estate boom have been unparalleled by any similar activity in many years. A number of branches of business are rapidly enlarging their sales of goods upon the installment plan without any clear vision as to what the outcome of the general movement may be. We are in the midst of one of the most spectacular stock market movements in our history

and participation in stock market speculation is perhaps more general than ever before.

During all this period Reserve Bank rates in Eastern money centers have remained low. Not until last month did Boston, Philadelphia, and Cleveland raise their rates and then only to 4 per cent. The New York rate still remains at $3\frac{1}{2}$ per cent.¹

Now these are the facts that have raised questions as to the wisdom of Reserve Bank action (or as some have considered it, inaction), of the last two years. As economists, our interest in these facts is not confined to the question of whether recent action has been all that should have been expected of the Reserve System. Our interest is more largely in the problem of long time reserve policy and its relation to the maintenance of sound credit conditions in the future; and it is the bearing which these and other facts taken together with recent Reserve Bank action have upon our long time credit problem that I have chosen to discuss this morning. Before we are in position to discuss this problem, however, it is necessary that we fully appreciate the extraordinary situation that has faced the Reserve System, and that to a considerable degree has indicated and today indicates the direction which reserve policy should take.

At no time up to the middle of 1922 was the opportunity offered to construct a reserve policy with a view to normal business needs. At that time considerable evidence was appearing that American business was returning to normal.

Unfortunately, however, the credit situation was wholly extraordinary. The very readjustment that had made it possible for the member banks to wipe out most of their indebtedness to the Reserve System offered a possibility for new credit disturbances. Gold continued to flow in in large volume and since member bank indebtedness no longer served as a means of neutralizing the effect of incoming gold, the outlook for credit stability was far from assuring.

Now, the central reserve banking theory generally accepted at the time of the formulation of our Reserve System presupposed a fairly normal situation with respect to world trade movements and with respect to the distribution of the world's gold monetary stocks. To an assembly of economists it is unnecessary to explain the operation of the old central reserve banking system or the extent to which the disruption of Europe after 1913 had destroyed the basic economic and financial conditions upon which the old theory of credit control rested. It is sufficient to point out that the outstanding fact in the situation was that we were operating under a reserve banking system devised to function under conditions in important respects radically different from the existing conditions. Under these changed conditions did there still reside in the Reserve System sufficient power to prevent serious credit disturbances in the future?

There is no question that there still resided in the Reserve System a very great power. The possession of gold reserves in an amount far in excess of that ever before concentrated in the hands of a banking system, gave the Reserve System a kind of power never before possessed in like degree by the reserve banking system of any country. This power, however, was mostly one-sided. It was a power to expand credit—not to contract it.

¹Early in January the New York rate was raised to 4 per cent.

In the ordinary credit channels there already existed an ample supply of credit. The real problem, therefore, was—could the Reserve System restrict the use of credit when the occasion required?

The extent to which the Reserve System during the last three years has possessed power to control and actually has controlled the credit situation has, in my opinion, been exaggerated. There is no question that during this period the Reserve System exercised a stabilizing influence. However, the assumption that the stability of commodity prices and the fairly conservative character of business operations in general in 1923 and 1924 were due principally to certain Reserve Bank actions which preceded or coincided with the checking of rising prices and of business expansion, I think, overlooks the main point; namely, that such stability was made possible primarily by the extraordinary psychological condition of the commercial banking business, and consuming world. As I have explained in a previous paper, the existence of a large degree of stability during this period, I believe, is no test of the power residing in the Reserve System at a time when a country already possesses or is receiving large amounts of excess reserves.

Now at the time when present reserve policy apparently was being formulated the possibility of future credit control depended upon three things:

(1) Whether as a result of gold previously imported there existed in the broader commercial credit structure potentialities for disturbing credit.

(2) If not, whether there existed in the excess reserves in Reserve Banks dangers of future inflation.

(3) What would happen if gold continued to flow in?

Whether in the broader commercial credit structure there existed potentialities for the disturbance of price levels or for unhealthy speculative movements without further resort to the Reserve System is a question which no one has satisfactorily answered.

Again the assumption that the Reserve Banks could prevent the use of additional reserve credit while in possession of vast amounts of excess gold lying idle in the vaults was certainly open to some doubt. Even if in the reserves already in the country there existed no potentialities for further price disturbances the outlook for gold movements rendered the future uncertain.

The existence of the huge intergovernmental obligations and other factors rendered the question of ordinary gold movement to some European countries in response to trade movements uncertain. Again, the attitude of some central banks with respect to the use of foreign exchange balances in place of gold raised considerable question as to how much gold would be purchased or retained by these banks in the future. The net of it all is that at the time when present reserve policy was being formulated there could be had no reasonable assurance either as to the direction or volume of gold movements, or as to whether there still resided in the Reserve System sufficient power to prevent unsound credit developments in the future.

Under these conditions what policy should the Reserve System have followed? Three theoretical possibilities were open: (1) the Reserve System could limit its efforts to the attempt to handle each new situation as it arose by the utilization of rediscount rate adjustments, open market

operations, and other possible adjustments within existing powers, in the hope that difficult credit conditions could be temporarily met until developments in Europe should eventually relieve us of excess gold; (2) the Reserve Act could be altered so as to give Reserve Banks power to sterilize the excess gold; (3) assistance which would hasten the restoration of the gold standard in Europe could be given.

The first course would have been indefensible. So long as member banks were heavily in debt to the Reserve System and continued to use all incoming gold for repayment, it was possible to exercise influence by these means. But once the indebtedness was practically paid off the potency of these means must diminish. The central fact in the recent situation was the existence of a large excess of funds and the possibility of a considerable augmentation of these funds in the future. No combination of open market operations and discount rate readjustments could have succeeded for any length of time in preventing easy money when investors and banks were seeking means for employing excess funds. Any successful attempt temporarily to raise money rates here must have resulted in holding funds here that otherwise would have gone abroad and in the end we should have had a greater plethora of money which sooner or later must have exerted its inflationary tendency.

The second course offered a possible means of meeting the situation. During the last few years several methods of maintaining reasonable stability without depending upon the old automatic system have been proposed. One proposal was to give the Reserve System power to change the reserve ratios of member banks at will. Unquestionably such power would have enabled the system effectively to sterilize excess gold but the suggestion was so revolutionary that its adoption was out of the question. There were other ways by which definite amounts of excess gold could be rendered unavailable for use as a basis for credit extension. These plans either involved new legislation which it was inadvisable to undertake or involved actions under existing powers which once effected would so tie up the gold as to render it difficult to release it readily when international finance or trade movements should call for exportation of gold.

The third course was for the time being to make the most of whatever tangible or psychological influence remained in rediscount rate adjustments and open market operations at such times as they appeared to be most needed and promised to be most effective, but actively to co-operate with Europe in its efforts to return to sound monetary conditions, and thus to hasten the restoration of the gold standard, to check the gold inflow and to initiate the return flow of gold.

As among these three courses I think it is not difficult to decide which promised to meet our credit needs of the future. The first, as I have said, was indefensible. The second was possible, although difficult, and at best could be looked upon as only a temporary makeshift until the time should come when other nations could return to the gold standard. The third was the end toward which reserve policy must eventually work. The practicability of this plan, however, depended upon European developments over which, of course, we had very little control. The carrying out of the third policy, therefore, for a time necessarily waited upon Europe.

Fortunately the developments in the European situation which were

coming to a head some eighteen or twenty months ago finally opened up possibilities for the restoration of sound monetary conditions in a large part of Europe. In the opinion of many, the opportune moment for initiating movements necessary to this restoration had arrived and if the restoration were postponed a similarly favorable opportunity might not again be offered for some time.

The stabilization of European currencies and the restoration of the gold standard, as well as the improvement of international trade, which was necessary to maintain the gold standard once it was adopted, required large financial assistance from this country. Whatever present judgment may be, I think that the final judgment will be that here was offered a great opportunity to be of service to the world and to bring much benefit in the long run to the United States.

But how could this assistance be given? Proposals which involved the lending of the excess reserves lying idle in the Reserve System to Europe had been made. If these funds could be lent directly to European central banks the strengthened reserves of these banks would assist in stabilizing the currency, and through rediscounting operations by these central banks credit could be extended to European commercial banks and thus to industry. The Reserve System possessed the power to lend these funds but it is now clear that such lending as appeared practicable must have fallen short of meeting the situation.

The most feasible plan was, while lending such direct assistance as was practicable, to maintain or establish so far as possible conditions which would induce American banks and investors to leave undisturbed credits already extended to Europe and to place more of available funds at the disposal of European governments, banks, and industries. The principal means of accomplishing this end was to contribute to the maintenance of interest rates at comparatively low levels in this country.

But it was not enough that interest rates should remain low during the period when the initial steps were being taken. The process of reestablishing European currencies promised to extend over a considerable period. If after stabilization plans were under way interest rates in this country should rise sufficiently to cause a reversal of the flow of funds a serious crisis in Europe might follow and currency reform in some countries suffer a definite setback.

These, then, are the facts which I think must have been fundamental in the formulation of recent Reserve Bank policy and which throw some light upon the credit situation set forth in the introductory paragraphs of this paper.

The recent developments in the international credit situation so far as our contribution is concerned are familiar to most of us. The Federal Reserve System has lent direct assistance to some European Central Banks. Considerable progress has been made in the working out of helpful understandings between American and some European reserve banks. American commercial and other banks and investors have extended large credits to Europe. Great Britain has been assisted in the return to the gold standard and numerous other countries have been able to take preliminary or final steps toward stabilization of currencies and the return to the gold standard; and, it must not be forgotten, that the large gold influx into this country has been checked, that an important net outflow occurred during

the present year, and that the outlook for gold movements, although still uncertain, does not carry with it the menace of two years ago. There exists no doubt that recent Federal Reserve policy has been one of the important contributing factors to these accomplishments.

Now, what may be said as to the future? Whatever our opinions as to future gold movements, I think we shall agree that the direction and volume will depend in no small measure upon the outcome of European developments now under way. Much must still be accomplished in Europe before present program for the return to the gold standard in several countries can be completed and indeed before the final success of recently effected stability in other countries can be entirely assured.

In a certain sense the crux of the European credit situation is London. The British still have important problems to work out. London is still dependent upon us. The Continent is dependent both upon London and upon us. A credit movement that would seriously affect London would be reflected on the Continent. To a larger degree than is generally appreciated the European financial situation is directly or indirectly dependent upon the credit operations of the United States. Fully to appreciate the extent of this dependence it is necessary to review some of the extraordinary factors in the present European credit situation.

One of these factors is the situation with respect to central bank reserves of some Continental countries. The reserves of several countries are today composed much more largely of foreign exchange holdings and foreign balances held abroad than of gold. Part of the reserves not held in the form of foreign bills or foreign balances originated from credits, some of the short-time loans granted by America to the banks and business concerns of these countries. Bills arising from these credits are frequently rediscounted with the central banks with the result that the reserves of the banks are augmented, and working capital for domestic and foreign business is temporarily obtained by business concerns. To the extent that reserves arise in this manner they lack the stability of the pre-war gold reserves. The latter might be reduced by unfavorable changes in the balance of payments but the post-war reserves so far as they rest upon short-time credits are more or less subject to call, irrespective of economic conditions, whenever foreign lenders wish to terminate maturing credits. The danger of depending too much upon these reserves is recognized by those in charge of the European central banks. This situation had led in some cases to the practical segregation of part of the foreign exchange holdings which are either held as secret reserves or not included in the reserve statement proper. It is impossible to estimate the proportions of central bank reserves that have arisen from short-time credits. Recent developments have tended to decrease the importance of reserves resting upon these credits. In some countries little importance is ascribed to these reserves, but in others apprehension clearly exists.

Another aspect of the same problem is the relation of these foreign balances to the stability of the exchanges. In part of Europe the degree of readjustment necessary to assure a sound balance of payments is not yet accomplished. Germany, Italy, Austria, Hungary, Poland, all have important balance of payment problems.

In Hungary, for example, where the balance of payments is so largely affected by crops a possible combination of poor crops and other adverse

developments might cause a serious reduction of the foreign exchange reserves. We know that happened in Czechoslovakia two years ago. More than 60 per cent of the foreign accounts receivable were wiped out in less than a year. Part of this reduction was probably due to some exportation of capital but it also seems probable that part of it was due to the reduction in merchandise export surplus which appears to be necessary to balance net invisible items.

We know what has happened in Poland this last year. A bad harvest in 1924, plus the developments in the Upper Silesian problem this spring, and other factors unfavorably affecting the balance of trade, have been followed by the reduction of her bank reserves by about one-half and the stabilization of Poland has for the time being become a grave question. We also know the threatening character of the merchandise trade balance of Italy this last winter and spring and of Germany this year (1925).

Few of the former Continental belligerents have reached the place in their recovery where they can be sure of maintaining the soundness of the currency and the stability of the exchange without resting heavily upon foreign exchange balances.

The third factor is the present dependence of commercial banks and business in several countries upon America for current working funds. The resources of leading commercial banks in several European countries were markedly reduced during the post-war period. In some countries a large percentage of the capital was wiped out and the remainder was to a considerable extent invested in nonliquid assets. The reduction of deposits of some of the larger banks by amounts ranging from 50 to 80 per cent of the pre-war, still further reduced available funds for financing business. During the last several years the funds of some of these banks have been augmented directly or indirectly by credits from this country but notwithstanding this assistance money is still tight and interest rates abnormally high. In several countries an unusually large percentage of the deposits are foreign currency deposits, and in some cases the liquidity of the banking situation is to a considerable extent dependent directly or indirectly upon American credits, susceptible of withdrawal in short periods of time.

Another aspect of the same problem is the unusual extent to which business in parts of Europe has become dependent upon short-time funds for working capital. The wiping out of the working capital as a result of inflation required many industrial concerns upon the stabilization of the currency to finance working capital needs by short-time borrowings, part of which have been effected in London and in the United States in the last two years. The difficulties that may arise from meeting too much of permanent working capital needs by short-time borrowings have been disclosed in Germany, Austria, Poland. It is, of course, understood that industries which are unable rapidly to replenish working capital from savings, or to borrow it for longer periods at home, will as soon as possible fund these floating debts by issuing long-term foreign loans. In fact, this has already been done to some extent.¹ To maintain stable conditions while the funding of loans is gradually being completed, it is necessary that nothing occur to diminish confidence in the European credit situation.

Now these extraordinary aspects are of course but a passing phase of

¹Most recent information indicates that rapid progress in this direction is now being made.

the readjustment now going on in Europe. They have by no means been general. In countries where one or more of these conditions has prevailed progress is being made in restoring the credit situation to a sounder basis. What is required at present is that the outside support which is greatly aiding in this progress should not be withdrawn.

It is not sufficient that present funds remain in Europe. Reviving business will produce some working capital but if business is to go forward at a satisfactory rate the needs for new capital will for the time being outrun the accumulation of capital. It is true that in general capital savings are increasing and some countries are once more lending abroad but further European recovery depends partly upon a larger use of American funds. In short, American capital and credit is today and must for the near future, at least, remain an important if not dominating factor in European credit problems.

In summary, my opinion with respect to recent and future reserve policy is as follows:

Some of the speculative aspects of the business situation alluded to at the beginning of this paper are unfortunate and should have been prevented were it practicable to do so. These developments resulted in part from too easy money. Once these developments were under way no one could tell where they would stop or how far the contagious speculative spirit might spread to other branches of business. Had the Reserve System possessed sufficient power assuredly to prevent serious credit disturbances in the future and had it been confronted with no more important problems than those involved in recent speculative activity, it seems clear that many months ago it should have taken definite action in the direction of tighter credit conditions.

Several considerations, however, raise grave doubts as to the wisdom of attempting to follow such a course at that time. Such power as the Reserve System still retained to restrain credit was likely to diminish as excess gold continued to come in. Had the reserve banks attempted to raise rates and had they been successful the plethora of money already existing would have been increased and the problem made more difficult. Our interest in the revival of Europe, both from the trade and price stability point of view, was very large. The only satisfactory solution for our credit problems was the return of Europe to the gold standard. The policy adopted by the Reserve System was the one best calculated to aid in the accomplishment of this end. Federal Reserve assistance and other American financial assistance have contributed greatly to the readjustment now under way in Europe. However, this readjustment is not completed. The successful completion depends upon continued American assistance and this involved continued co-operation on the part of the Federal Reserve System.

We are under no commitments to continue to support the European program and in the minds of some we are under no moral obligations. I cannot entirely agree with the latter. In any case, our broader business interest in the completion of the program now under way in Europe is so large that it would be folly not to continue such co-operation. Again there are strong reasons why the future of the gold standard and the utilization of gold by Europe and, therefore, the value of gold and the stability of our price level depend upon the extent of Federal Reserve co-operation with

Europe. Such co-operation must necessarily continue to be an important part of Federal Reserve policy.

And this leads us to the question which has so frequently been raised in the last five months; namely, in formulating reserve policy, how much weight should American Reserve Banks give respectively to domestic and foreign factors? This is a question which I think no one can answer in advance. We are dealing with an extraordinary situation. Our Reserve Bank practice must be adjusted in the light of events as they develop. The best that we can do in the immediate future is to steer the clearest course possible between the short-time needs of the American market and the long-time needs of both Europe and America, the satisfaction of the latter two of which to a considerable degree depends upon the carrying out of the programs of stabilization which are now going forward at a gratifying rate.

In short, definite and marked progress in Europe is clearly under way. To a considerable extent the Reserve System has been relieved of the factor which threatened to weaken it and, all things considered, it is now in a much stronger position with respect to its ability to guide the credit of the country along sound lines in the future.

FEDERAL RESERVE POLICIES—DISCUSSION

B. H. BECKHART.—One of the most significant features of the addresses this morning has been the importance ascribed to the rôle which the Reserve Banks should and can play in the economic and financial organization of society. It was implied in the first address that the Reserve Banks were designed and are expected to so formulate their credit policies as to reduce the amplitude in the cycle and thus to bring a measure of stability in the economic life of the country. The second speaker laid emphasis on the very important services rendered by the Reserve Banks in the financial and monetary reconstruction of Europe. The theories which have been expressed relative to the functions of the Reserve Banks are far in advance of those theories regarding the functions of central banks prevalent before the war which for the most part laid stress on the issuance of an elastic currency and the protection of the banking reserves of the country.

In commenting on the addresses I want first of all to reiterate Professor Reed's condemnation of the encroachments of the politicians on Federal Reserve credit policies. It is a deplorable fact that political influences have played such a prominent part in the Reserve System not only as regards appointments to the Board, but even as regards the fixing of the rates of rediscount. It is most unfortunate that the present administration has on various occasions seen fit, when a rise in the bank rate seemed imminent, to state that the bank rate would not be changed or that there was no need of a change. Judging from these public statements the administration seems to be a constant advocate of low discount rates which is as absurd and untenable as the constant advocacy of high discount rates. Rates of rediscount are intended to fluctuate so that through their fluctuations, economic conditions may be more or less stabilized.

This brings me to the second point which involves the factors which should have greatest weight in fashioning and in determining reserve credit policies. If I am correct in my interpretation, Professor Reed would ascribe greatest weight to stock and inventory accumulations. These are of highest importance as determinants of discount policies and the Reserve Banks through a careful analysis of such financial statements as they receive can do much in checking the accumulation of inventories by refusing to discount the paper of those firms which seem to be in an overinventoried condition. Not only should the Reserve Banks do this, but they should be so acquainted through their examination departments with the general character of the business of each member bank as to be in a position to refuse advances to those members inordinately engaged in the financing of speculation.

A more significant determinant at the present time of the credit policies of the Reserve Banks (since the reserve ratio and the foreign exchanges as indexes must necessarily be ignored) is security and wholesale commodity price fluctuation. Fluctuations in these are more responsive to the underlying economic situation than inventory accumulations, and in fact antedate them. They indicate whether credit has expanded beyond the

requirements of trade and industry. Furthermore, price fluctuations, according to many economists, constitute one of the chief causes of the trade cycle. If then reserve credit policies were formulated in order to mitigate price fluctuations, they automatically would be formulated to reduce the amplitude of the trade cycle.

The bank rate has not been adjusted to changes taking place in the domestic economic situation. When prices are rising, bank rate policy is characterized by the greatest timidity and delay even though the bank rate be lowered promptly enough on the downward sweep of the cycle. Increases in the bank rate were long delayed during both the price rise of 1922 and of 1924. Even at the present time the rate at the Federal Reserve Bank of New York rules at $3\frac{1}{2}$ per cent and has not been changed since February 27, 1925, in spite of the inflated condition of the stock market and in spite of the fact that it is below the rates of interest in every one of the money markets in New York.¹

On the whole, sales and purchases of United States securities have been more closely correlated during 1924 and 1925, through the open market investment committee, to the changing economic situation than has the bank rate. Unfortunately, however, the beneficial effects of the policies followed in refusing to purchase additional amounts of securities or in actually selling securities during the last months of 1924 were largely nullified through the large purchases of acceptances. The Reserve Banks have not been able to adjust their purchases of acceptances to economic conditions owing to the responsibility under which they labor of supporting the discount market, a responsibility which should be assumed by the entire banking community.

As Dr. Chandler has so ably indicated, the bank rate policy has been largely governed by the desire to assist Europe's and particularly England's return to the gold standard. The bank rate was to be held lower than the rate in London in order that short-term banking funds would be transferred there and would not be drawn to New York. The fly in the ointment, however, consists in the fact that questions of political expediency have governed fluctuations in the British bank rate. The British rate was lowered on August 6, and again on October 1 of this year (1925), by $\frac{1}{2}$ of 1 per cent even though on the latter date the pound ruled at the gold export point. The last reduction was made presumably to appease the wrath of the export industries which were particularly injured by the return to gold, and was followed during October by exports of forty-two millions of dollars of gold from England to the United States. The rate then at the Federal Reserve Bank of New York, at the risk of domestic inflation, has been held lower than the British rate, which was itself held inordinately low in considerations of a political nature. The Reserve Banks which so formulated their policies as to assist England maintain the gold standard and to check imports of gold into the United States, found their efforts rewarded by imports from England of over forty millions of dollars of gold

¹The rate was raised on January 7, 1926, to 4 per cent.

which could have been prevented if the bank of England had raised its rate and sold a portion of its portfolio of securities.

In analysing the credit policies of the Reserve Bank we are forced to the following conclusions:

1. Their credit policies, and especially their bank rate policies, have not been formulated so as to combat in any adequate fashion, inflation or speculation, or to prevent the present inordinate concentration of funds in New York.

2. They have failed to assert an effective leadership in the New York money markets.

3. The fact that the present inflation in stock and real estate values has not spread to the commodity markets is due more to the self-restraint of the business community, as Dr. Chandler indicated, than to Reserve credit policies.

4. That the preponderate influence for the past year on Reserve Bank policies has been the international monetary situation and the desire to assist England and various other nations to return to the gold standard. The bank rate in New York has been held low in order not to attract gold or foreign bankers' balances, a policy which has been nullified by the rise in market rates, the speculative orgy on the stock exchange which has itself attracted foreign funds and the maintenance of an inordinately low bank rate in London.

5. That the best determinant of the bank rate is security and wholesale commodity prices.

6. Finally, that the Reserve Banks should as a means of credit control examine more carefully into and be more familiar with the general character of the business of the member banks.

MINUTES OF THE BUSINESS MEETINGS OF THE AMERICAN
ECONOMIC ASSOCIATION HELD AT NEW YORK,
DECEMBER 28-31, 1925.

The first business meeting of the American Economic Association was held at the Hotel Pennsylvania, New York, December 29, 1925, at 9.30 A.M., President Young, presiding.

The minutes of the December 31, 1924, meeting were read and approved. Reports were read by the following and adopted:

- (1) The Secretary,¹ by Mr. Deibler.
- (2) The Treasurer,² by Mr. Deibler.
- (3) The Auditing Committee,³ by Mr. Deibler for Chairman E. L. Kohler.

- (4) The Managing Editor,⁴ by Mr. Dewey.

- (5) The Joint Census Advisory Committee,⁵ by President Young.

- (6) From the National Council of Social Studies.⁶ It was voted that our representative on this Council be reappointed.

- (7) Professor Secrist reported for the representatives of the American Economic Association on the Social Science Research Council:

First, for record on matters referred to the Social Science Research Council (a) that action on the establishment of an honorary society in the social sciences be deferred; (b) that "it is believed that the constituent associations should act only in concert in dealing with the American Association for the Advancement of Science and that the relation of the Social Sciences to the Association for the Advancement of Science should be made the matter of further study by the Social Science Research Council and its constituent members."

Second, on the work of the Social Science Research Council, a common report was prepared by this Council and presented to each of the associated associations.

It was moved by Professor Page and carried, that this report, as well as the report from the representatives on the American Council of Learned Societies, be received and the Secretary of the Association be instructed to publish such portions of each report as he thinks wise.⁷

Professor Seligman reported on the project for the publication of an Encyclopedia of Social Science. It was voted that this report be received and the resolutions proposed therein be referred to the Executive Committee.⁸

Professor Taussig reported for the Committee on Honorary Members, recommending that the following persons be elected honorary members of the American Economic Association: C. F. Bastable, of Dublin, Ireland, Lujo Brentano, of Munich, Germany, K. Bücher, of Leipzig, Germany, L. Einaudi, of Turin, Italy, Gaston Jèze, of Paris, France, Achille Loria, of Turin, Italy.

¹See page 331.

²See page 339.

³See page 340.

⁴See page 342.

⁵See page 344.

⁶See page 344.

⁷See page 345.

⁸See page 350.

It was voted to instruct the Secretary to cast a white ballot to elect as honorary members the persons recommended.

President Young appointed J. A. Field, Dr. A. N. Young, and J. H. Rogers, a Committee on Resolutions.

Professor Paul H. Douglas moved that it was the sense of this meeting that the Executive Committee add to the list of officers that of Honorary President. Professor Page moved as a substitute motion that the Executive Committee be requested to consider methods of expressing the appreciation of the Association of the work of distinguished scholars in this field. The substitute motion prevailed and was adopted.

Adjourned

The second business meeting of the American Economic Association was held at the Hotel Pennsylvania, New York, December 31, 1925, at 9:00 A.M., President Young presiding.

The minutes of the meeting of December 29, 1925, were read and approved.

President Young made an informal report on his effort to carry out the instructions of the Association in connection with the Commons-Willis Resolution (cf. Proceedings, March, 1925, p. 129), and reported that the Executive Committee had voted to defer further action on this resolution on account of the financial obligations that would be involved. (cf. Report of Executive Committee, p.) This report was adopted.

The report of the Finance Committee¹ was read by Mr. Deibler for Mr. Crennan. It was approved.

Professor Dewey made a brief statement concerning the proposed project for the Committee on Social Science Abstracts.

Professor Seligman reported for the Nominating Committee a list of officers as follows:

For President: Edwin Walter Kemmerer, of Princeton University.

For Vice-Presidents: Benjamin Strong, New York, Ira B. Cross, University of California.

For Secretary-Treasurer: Frederick S. Deibler, Northwestern University.

For members of the Executive Committee: Richard T. Ely, Northwestern University, Clyde O. Ruggles, Ohio State University.

For members of the Editorial Board: Ray B. Westerfield, Yale University, Ernest M. Patterson, University of Pennsylvania.

For the Program Committee: Paul H. Douglas, University of Chicago.

To represent the Association on the Social Science Research Council: Horace Secrist, for a term of three years.

Wesley Mitchell, to fill the unexpired term of John R. Commons, resigned.

The nominees were unanimously elected.

Professor Ely reported for the Committee on Methods of Nominating Officers, that the plan followed during the year 1925 be continued during the coming year, and the Committee be continued with the view of bringing in a permanent plan at the next annual meeting.

Approved.

The Committee on Resolutions reported as follows:

The members of the American Economic Association, at the close of their thirty-eighth annual meeting, wish to record their appreciation of the thought and effort

¹See page 353.

and good will which have been bestowed by the officers, the committees, the chairmen, and other representatives of the Association upon the planning and the conduct of the meeting.

In particular, they wish to express to President Butler and Mrs. Butler their thanks for the gracious hospitality which threw open to them the doors of the Faculty House at Columbia University.

To Professor R. C. McCrea and his associates upon the local committee they offer their heartiest thanks for the admirably unobtrusive, compact, and convenient arrangements that have characterized all these sessions.

The Association takes this occasion to express its grateful appreciation of the able service of Professor Ray B. Westerfield, who has resigned from his duties as Secretary of the Association since the last annual meeting. During the five years for which he held the office, Professor Westerfield gave his time and his thought unsparingly to the interests of the Association. He has laid us all under deep obligation.

After a brief statement from Mr. Harold Heaton describing the formation of the Australian Economic Association, it was voted to direct the Executive Committee to frame and to send a suitable message conveying the best wishes of this Association to the officers of the Australian Economic Association.

The list of invitations for the next annual meeting was read by the Secretary. It was voted to refer to the Executive Committee the selection of time and place of the meeting in 1926.

Adjourned.

Minutes of the First Meeting of the 1926 Executive Committee.

The first meeting of the 1926 Executive Committee was held at the Hotel Pennsylvania, New York, on December 31, 1925, at 12:30 P. M. There were present: Professor Allyn A. Young, presiding, Messrs. Day, Deibler, Dewey, Ely, Kiekhofer, Page, and Reed.

Voted: That the sum of \$1500 be appropriated for REVIEW contributions during the year 1926.

Voted: That the Secretary be authorized to publish a Handbook of the membership as a Supplement to the June issue of the of the REVIEW.

Voted: To appoint Mr. E. A. Harriman of Washington, D. C., as Counsel for the Association for the year 1926.

Voted: That the Secretary be authorized to attend the meetings of the secretaries of the associations constituting the American Council of Learned Societies, the meetings to be held in New York, January 22 and 23, 1926.

Voted: That in the case of future requests to circularize the membership, the Secretary be authorized to take the matter up with the President, or in his absence, with the Vice-Presidents of the Association.

Voted: That Mrs. Robert Woodbury be appointed as a delegate to represent the American Economic Association at the conference called by the United States Women's Bureau, to discuss the problems of women in gainful occupations.

Voted: That David Friday be reappointed as a Director on the National Bureau of Economic Research, representing the American Economic Association.

Voted: That the determination of the time and place for the Spring meeting of the Executive Committee be left with the Secretary.

Adjourned.

REPORT OF THE SECRETARY OF THE AMERICAN ECONOMIC
ASSOCIATION FOR THE PERIOD ENDING
DECEMBER 12, 1925.

In order that the work of the Association for the year may be reported fully, the Secretary has included in his report the minutes of all meetings of the Executive Committee held during the year, as follows:

(1) Minutes of the First Meeting of the Executive Committee at Chicago, Illinois, December 31, 1924. These minutes, as given below, were published in the Supplement of March, 1925, pp. 130-131:

The first meeting of the 1925 Executive Committee was held at the Congress Hotel, Chicago, Illinois, at 1 P. M., December 31, 1924.

The minutes of the meeting of December 29, 1924, were read and approved.

Voted: To authorize the Treasurer to pay the Babson Prize Awards, as well as the honoraria to the judges.

Voted: To elect Mr. E. A. Harriman Counsel of the Association for the current year.

Voted: To appoint Mr. A. A. Young to the Joint Census Advisory Committee for three years.

Voted: That the Secretary be instructed to express to the National Council of Social Studies (1) the high appreciation of the American Economic Association of the work done by the Council, and (2) its willingness to pay the traveling expenses of its representative on the Council.

Voted: To continue publishing in the AMERICAN ECONOMIC REVIEW the list of doctoral theses in preparation.

Voted: To instruct the Managing Editor to publish a list of the doctoral theses accepted by the universities each year.

Voted: That the funds are not available at the present time for publishing Levy's Senior's economic manuscripts.

Voted: That it does not seem wise at the present time to assume the financial burden of assisting in the publication of Starr's *Life of William G. Sumner*.

Voted: To appoint Mr. D. R. Dewey as representative of the American Economic Association on the Joint Committee on the Publication of Periodical Abstracts.

Voted: To instruct the Managing Editor and his Editorial Board to determine the advisability of publishing the Babson Prize Essays.

Voted: To authorize President Young to appoint a committee to consider plans and nominees for the offices of Secretary and Treasurer in case the present incumbent resign at the spring meeting of the Executive Committee.

Adjourned.

(2) Minutes of the Second Meeting of the Executive Committee at New York City, April 11, 1925:

The second meeting of the Executive Committee was held in Hotel Commodore, New York City, at 10:15 A. M., April 11, 1925. There were present: Messrs. Young, presiding, Dewey, Day, Reed, Hancock, Ely, Kieckhofer, Mitchell, and Westerfield. The minutes of December 31, 1924, were read and approved.

Voted: That the American Economic Association publish as a Supplement to the Review the essay which won the first prize in the recent Babson Competition.

Voted: That Professor David Friday be reappointed as Director of the National Bureau of Economic Research, representing the American Economic Association.

Voted: That the Secretary advise Mr. Henry Holt that the American Economic Association has no objection to his circularizing the membership of the Association, and offering them a special discount on Starr's *Life of William G. Sumner*.

Voted: That the Secretary advise the American Council of Learned Societies that the American Economic Association is favorably disposed toward the Council's proposal to distribute at cost the constituent Societies' publications to certain needy foreign libraries and institutions.

Voted: That the President appoint a committee of three on economic research charged with preparing a list of the major economic researches in hand or contemplated.

plation and to keep the American Economic Association membership informed of this matter.

Voted: That the President appoint a standing Finance Committee, consisting of the Treasurer and two others, whose business it shall be to supervise the investment of funds.

Voted: That the Treasurer be instructed to have himself bonded in a sum of \$25,000, and his principal assistant in a sum of \$5,000.

Voted: That the Treasurer be instructed to put the Association's investments in the hands of a trust company, or trust department of a bank, as agent.

Voted: That the President be instructed to confer with various economic research bureaus according to the vote of the Association on Professor Willis' motion relative to an investigation of price making and quoting.

Voted: To approve the action of the Treasurer in selling twenty shares of the Standard Gas and Electric Company 7% cumulative prior preference stock and buying in their stead \$2,000 of City of Los Angeles, California, bonds 4¾'s, 1945.

Voted: That the next annual meeting be held in New York City, December 28-31, the provision for local accommodations being left to the Secretary and the local committee whom he may appoint.

Voted: That Professor F. S. Deibler be elected Secretary and Treasurer and that the succession be carried out at the common convenience of the incoming and outgoing officers.

Voted: That the new Secretary and Treasurer be paid an honorarium of \$1,000 per year for his services.

Voted: That the Treasurer be authorized to have his books audited at the end of his term of office.

Voted: That the Secretary and Treasurer be authorized hereby to turn over to his duly appointed successor the various properties of the Association.

Adjourned.

(signed) RAY B. WESTERFIELD, *Secretary*.

(3) Minutes of the Third Meeting of the Executive Committee, December 29, 1925.

The third meeting of the Executive Committee of the American Economic Association was held at the Pennsylvania Hotel, New York, December 29, at 8:30 A. M. There were present: President Young, presiding, and Messrs. Day, Deibler, Dewey, Ely, Hancock, Kiekhofer, Jones, Page, and Reed.

The minutes of the April 11 meeting were read and approved.

Voted: To defer further action on the suggestion to appoint a special committee to make a detailed study of the classification of economists in Federal Service. (cf. Report of Committee, Proceedings, March Supplement, 1925, p. 150).

Voted: To appoint Professor Willcox for a term of three years on the Joint Census Advisory Committee.

President Young reported that he had conferred with a number of bureaus of research concerning the feasibility of making an investigation into the methods of price quoting, (as per the Commons-Willis Resolution, March Supplement, 1925, p. 129). Several bureaus indicated an interest in the undertaking provided the American Economic Association would undertake the task of raising the necessary financial support, which was estimated at from \$25,000 to \$45,000.

Voted: That because of the financial conditions involved it is impractical for the American Economic Association to undertake the investigation, and to request President Young to make a report at the next business meeting on the conditions found in attempting to carry out the instructions of the Association.

Voted: That the Committee on Methods of Nominating Officers be requested to suggest a plan for nominating officers of the Association, and to report at the final business meeting on Thursday, December 31, 1925.

Voted: To delay action for the present on the suggestion of Professor Seligman that the Association publish a list of prizes and fellowships available for research in economics. This action was taken because of the work of the American Council of Learned Societies and the Social Science Research Council along similar lines.

Voted: To postpone action on the appointment of a committee of three on Economic Research, pending the work of the American Council of Learned Societies and the Social Science Research Council along similar lines.

Voted: To lay on the table the request of Mr. Ho for the presentation of a set of publications of the American Economic Association.

President Young presented the report on the legal question raised by Mr. Harriman, Counsel for the Association, pertaining to the relations of the American Economic Association with the American Council of Learned Societies. It was voted that the Secretary put into the hands of Professor Haskins the correspondence on the question and that further action by this Association be deferred for one year, as it is understood that the American Council of Learned Societies will take steps to correct any illegalities there may be in its constitution and by-laws.

Voted: To adjourn until 9 A. M., December 30, 1925.

(4) Minutes of the Fourth Meeting of the Executive Committee, December 30, 1925.

The fourth meeting of the Executive Committee of the American Economic Association was held at the Pennsylvania Hotel, New York, December 30, 1925, at 9 A. M. There were present: President Young, presiding, and Messrs. Day, Deibler, Dewey, Ely, Hancock, Jones, Kieckhofer, Page, and Reed.

The minutes of the meeting of December 29 were read and approved.

Voted: That the matter of showing special appreciation for the work of individual economists by this Association be referred to a subcommittee of the Executive Committee, to be appointed by the President, and a report requested at the spring meeting of the Executive Committee.

President Young appointed Professor Page, chairman, and Messrs. Day and Mitchell.

Voted: That in the matter of futures trading, the question raised by the letter of J. W. T. Duvel of the U. S. Department of Agriculture, the President be authorized to reply that heretofore when the American Economic Association has taken steps to co-operate with an administrative department of the government, a request to that effect has come to the Association from the head of the department and that should such a request be presented in this instance the Association would look favorably upon such co-operation as it could fittingly undertake.

Voted: That the project for social science abstracts as presented by Professor F. Stuart Chapin be approved and the Secretary be authorized to enclose subscription blanks or other descriptive literature in his general correspondence with the membership of the Association.

Voted: That the request of the Honorary Secretary of the American Philosophical Association, inviting members of this Association to attend the Sixth International Congress of the A. P. A., be printed in the Review.

Voted: To discontinue the list of complimentary members.

Voted: That the Secretary secure and send members of the Executive Committee copies of Professor Seligman's report on the project for an Encyclopedia of Social Science and that further action be deferred until members of the Executive Committee had had time to study this report.

Adjourned.

The resignation of Professor Ray B. Westerfield from the office of Secretary and Treasurer of the Association necessitated the moving of the headquarters from New Haven, Connecticut, to Evanston, Illinois. This transfer was effected as of May 20, 1925. Few members of the Association realize the volume of details that daily pass through this office, and the present Secretary wishes to express his appreciation of the organization of the work of the Association as it was passed on to him by his predecessor.

In executing the orders of the Executive Committee the prize essay in the Babson Competition, entitled "Forecasting the Price of Hogs," was published as a Supplement to the September number of the Review.

A request to circularize the membership of the Association, received from Professor Arthur J. Mertzke, Secretary of the Institute of Land Economics and Public Utilities, was presented to the Executive Committee by mail and approval granted—a courtesy similar to that granted Henry Holt & Company in connection with the publication of Starr's *Life of William G. Sumner*.

During the year the President made the following appointments to committees:

- To Finance Committee,
C. H. CRENNAN, *Chairman*
WADDILL CATCHINGS
F. S. DEIBLER
- To Committee on Honorary Members,
F. W. TAUSSIG, *Chairman*
J. H. HOLLANDER
E. W. KEMMERER
G. A. KLEENE
- To Auditing Committee,
ERIC L. KOHLER, *Chairman*
EARL A. SALIERS
PAUL MORRISON
- To committee on Local Arrangements,
PROFESSOR R. C. MCCREA, *Chairman*
LEWIS H. HANEY
FRANK A. ROSS
JERE D. TAMBLYN
JOHN R. YOUNG

The following table shows the changes in membership that occurred during the year ending December 12, 1925, the date the books were closed:

Members and subscribers in December, 1924.....	3,547
Annual members in December, 1924.....	2,691
Members resigned in 1925.....	128
Removed for lack of address.....	42
Members dropped for nonpayment of dues.....	37
Annual members changed to life members.....	1
Annual members died.....	17
	2,466
New annual members in 1925.....	350
Total annual members in December, 1925.....	2,816
Life members in December, 1924.....	98
Life members removed:	
Lack of address.....	1
Died.....	6
	91
Annual members changed to life members in 1925.....	1
Total life members in December, 1925.....	92
Honorary members in December, 1925.....	9
Honorary members removed:	
Died.....	1
	8
New Honorary member in 1925.....	0
Total honorary members in December, 1925.....	8
Total members in December, 1925.....	2,916
Subscribers in December, 1924.....	749
Subscribers discontinued in 1925.....	69
	680
New subscribers in 1925.....	150
Total subscribers in December, 1925.....	830
TOTAL MEMBERS AND SUBSCRIBERS IN DECEMBER, 1925.....	3,746
Net gain.....	199

The growth in membership has been encouraging, and the Secretary wishes to express his appreciation of the active co-operation of a very large number of persons who have suggested names of prospective members. Experience has shown that the membership of the Association can be maintained at less expense through this method of nomination than in any other yet tried. The Secretary solicits the continued interest of the membership in suggesting the names of persons most likely to be interested in becoming affiliated with the Association. The correspondence inviting these persons to become members can be easily carried and at small expense in the Secretary's office.

During the year the death of the following members has been reported and their names have been removed from the membership list:

LE BARON COLT
ANDREW McF. DAVIS (*Life Member*)
WILLIAM B. ELLISON
C. S. FAIRFIELD (*Life Member*)
H. D. W. GIBSON (*Life Member*)
DAVID I. GREEN, (*Life Member*)
FRED L. HAM
ROBERT B. HIRSCH
EDMUND J. JAMES (*Life Member*)
FRANCIS B. JAMES
JOSEPH F. JOHNSON
J. KRUTTSCHNITT

LOGAN G. McPHERSON
CHARLES H. NETTLETON
THOMAS A. POLLEYS
DUDLEY R. SARGENT
WALTER M. TAUSSIG
T. B. THOMPSON
FRED W. UPHAM
JOHN M. WHITEHEAD
JAMES E. WILSON
ROBERT A. WOODS
T. K. WORTHINGTON (*Life Member*)

Respectfully submitted,

FREDERICK S. DEIBLER, *Secretary*.

REPORT OF THE TREASURER OF THE AMERICAN ECONOMIC ASSOCIATION FOR THE PERIOD ENDING DECEMBER 12, 1925

The books of the Association were closed December 12, in order to give ample time to take care of the work of preparing for the annual meeting. The change of Treasurers made it necessary to have the books audited twice since the last annual meeting. The first audit covers the period from December 13, 1924, to May 20, 1925—the date of the expiration of the term of office of Professor Ray B. Westerfield. The second audit covers the entire period from December 13, 1924, to December 12, 1925. The following exhibit, therefore, presents the cash receipts and expenditures of the American Economic Association for the period December 13, 1924, to and including December 12, 1925. This statement should be interpreted in connection with the balance sheet and income account prepared by the Auditing Committee and with the report of the Managing Editor of the AMERICAN ECONOMIC REVIEW.

CASH RECEIPTS AND EXPENDITURES

Cash on hand December 13, 1924..... \$11,219.74

Receipts

Membership dues	\$11,844.63
Subscribing and contributing memberships.....	1,610.00
Life memberships	200.00
Membership extension fund	1,800.00
Subscriptions	3,619.04
Investments	12,981.97
Interest	1,515.85
Sales of publications	835.85
Sales of reprints	120.47
Babson fund	300.00
Profit and loss on investments	33.03
Miscellaneous receipts	287.96

35,118.80

\$46,368.54

Expenditures

Publications	
Review printing	\$ 3,256.46
Review editorial	1,375.00
Review expenses and supplies	1,928.97
Review contributinal	1,133.50
	7,693.93
Proceedings	931.43
Sundry publication expenses.....	83.55

\$ 8,708.91

Secretary's Office

Secretary's salary	533.34
Office salaries	2,801.38
Stationery and office printing.....	245.71
Office supplies	129.40
Office postage	543.91
Telephone and telegraph	62.17
Annual meeting	620.46
Insurance	79.10
Miscellaneous expenses	515.52

\$ 5,530.99

Express	25.00	
Investments	18,331.45	
Paper stock	1,884.10	
Membership campaign expenditure.....	141.74	
Furniture and fixtures.....	294.95	
American Council of Learned Societies.....	139.90	
Insurance	56.00	
Interest accrued	43.67	
Babson prize essay fund	1,432.68	
Committee expenses	323.70	
		\$36,913.09
Cash on hand December 12, 1925:		
Central Trust Company of Cambridge.....	\$ 3,742.26	
State Bank and Trust Company—Savings account	3,378.93	
State Bank and Trust Company—Checking account	2,334.26	
		\$ 9,455.45
		\$46,368.54

Some interpretation should be made of the above accounts. The total expenditures for the office of Secretary-Treasurer for the year 1925 were \$5,530.99 as against \$3,717.82, an increase of \$1,813.17. These additional expenses are accounted for partly by the cost of moving the headquarters of the Association, and partly by the vote of the Executive Committee to pay the Secretary an honorarium. The additional expenses that are chargeable to moving amount to \$790.23, as follows:

Crating furniture	\$169.86
Freight and cartage	25.00
Letterheads with new address	34.50
Extra janitor service	17.60
Insurance	4.10
Traveling expenses of assistant secretary.....	199.17
Salary of new assistant secretary from May 8, to June 30.....	260.00
	\$790.23

To this figure should be added \$132.50 for a new cabinet to hold publications and supplies. The additional salary item for the assistant secretary resulted from the necessity of sending some one to New Haven to become acquainted with the routine of the office. This also explains the traveling expenses listed. In addition the regular staff had earned and were allowed their vacations with pay. The honorarium to the Secretary from June 1 to December 12 amounts to \$533.34. These sums account for \$1,456.07 of the increased expense chargeable to the Secretary's office.

The publication expenses show a total of \$8,708.91 as against \$10,133.19, a difference of \$1,424.28. This difference, however, does not represent a saving. There were bills payable amounting to \$1,553.37 as follows:

Review printing (December Review)	\$1,184.73
Review editorial	125.00
Review expenses and supplies	234.91
	1544.64
Sundry publication expense	8.73
	\$1553.37

The combined publication expenses were, therefore, \$10,262.28, or \$129.09 more than the previous year.

The Executive Committee voted at its April meeting to authorize the Treasurer to bond himself in the sum of \$25,000, and his principal assistant in the sum of \$5,000. These bonds were taken out with the American Surety Company at a cost of \$75.00.

At the April meeting the Executive Committee approved the action of the Treasurer in selling twenty shares of the Standard Gas and Electric Company 7 per cent cumulative preference stock and buying in their stead \$2,000 of City of Los Angeles, California, bonds.

The Executive Committee instructed the Treasurer to place the securities of the Association in the hands of a trust company, or the trust department of a bank, as agent. These instructions have been carried out and the State Bank and Trust Company of Evanston, Illinois, is acting in this capacity. The bank holds the securities in trust and collects the interest, notifying the Treasurer of the amounts collected and of the maturity or the calling of any security so held. The charge for this service is \$1.00 per security per year.

The Executive Committee authorized the President of the Association to appoint a standing Finance Committee to consist of the Treasurer and two others to supervise the investment of the funds of the Association. Mr. C. H. Crennan, of the Continental and Commercial National Bank of Chicago, was appointed as chairman, and Waddill Catchings of Goldman Sachs and Company, New York, the third number. As soon as this committee was appointed the Treasurer submitted to its members a list of the existing securities owned by the Association and advised them that \$5,000 were available for investment. Upon the advice of the other two members of the Finance Committee the following securities were sold, and the proceeds invested in certificates of deposit, awaiting a more favorable investment market.

BONDS SOLD

	Par	Cost	Sold
Chicago Joint Stock Land Bank 5½s	\$4,000.00	\$4,040.00	\$4,160.00
Los Angeles Sewerage 4½s	2,000.00	2,091.00	2,000.00
Imperial Japanese Government 6½s	2,000.00	1,850.00	1,870.00

Upon the recommendation of the Finance Committee the Treasurer has purchased the following securities from the proceeds of bonds sold and surplus funds of the Association:

BONDS BOUGHT

	Par	Cost
Armour and Company 5½s	\$2,000.00	\$1,870.00
Illinois Bell Telephone Company 5s	2,000.00	2,007.00
Commonwealth Edison Company 5s	2,000.00	2,050.00
Illinois Central Joint 5s	2,000.00	1,995.00
Standard Milling Company 5½s	2,000.00	1,945.00
Sheffield Farms 6½s	1,000.00	1,071.00
Pacific Mills, Ltd. 6s	2,000.00	2,040.00

The total investments of the Association now amount to par, \$25,000; cost, \$24,461.50, with an annual interest yield of \$1,350.

The Finance Committee recommends that the Treasurer keep any funds, temporarily idle, invested in certificates of deposit. These instructions

will be followed in handling any such funds during the coming year. The State Bank and Trust Company of Evanston, Illinois, has paid since October 1, 2 per cent on all deposits in the checking account above \$1,000.

Contributions totaling \$1,800 were received through the Special Finance Committee headed by Professor Seligman. This sum was credited to the membership extension fund. During the year the sum of \$182.21 was expended from this fund, leaving a credit balance of \$5,823.42 on December 12.

After the publication of the Babson Prize Essay there remained a balance of \$103.88 in this account. Mr. Babson very graciously donated this sum to the Association to be used in any research purposes in which the Association was interested.

The net receipts from membership dues for the year were \$13,454.63 as against \$13,336.04 the previous year. This represents an increase of \$118.59 from this source. It is of interest to note that the income from subscribing and contributing members increased during the year from \$1,390 to \$1,610. The finances of the Association could be materially improved if more members were to enter the subscribing and contributing list.

Notwithstanding the unusual expenses mentioned above the total expenditures were well within the net income for the year as may be seen from the above statement. The assets of the Association as of December 12 include a current balance of \$2,334.26, savings accounts of \$7,121.19 and investments of \$24,661.75 listed at cost.

Two new Royal Typewriters were purchased at a net cost of \$157.50. It may be found to be an economy to install an addressograph to handle the mailing lists—a matter now under investigation by this office. The expenses of operating the two offices should show some savings during the coming year, on account of the extra moving expenses incurred during the present year.

Respectfully submitted,

F. S. DEIBLER, *Treasurer.*

REPORT OF THE AUDITING COMMITTEE

Evanston, Illinois, December 22, 1925.

To the American Economic Association, Incorporated:

We have examined the books and accounts of the American Economic Association, Incorporated, for the fiscal period December 13, 1924, to December 12, 1925, and find that the balance sheet presented below and the accompanying relative income statement and surplus account are correctly prepared therefrom.

Investments, which are valued at cost, and cash have been verified by actual inspection or by certificates from the depositories. The reserves for membership dues receivable and for other receivables are, in the opinion of the Committee, sufficient to care for uncollectible items.

We certify that, in our opinion, the balance sheet correctly reflects the financial condition of the Association on December 12, 1925, and the accompanying relative income statement fairly states the results for the fiscal period beginning December 13, 1924, and ending December 12, 1925.

Respectfully,

ERIC L. KOHLER, C. P. A.
PAUL L. MORRISON, C. P. A.
EARL A. SALIERS.

Auditing Committee.

BALANCE SHEET AS OF DECEMBER 12, 1925

<i>Assets</i>		<i>Liabilities</i>	
Cash in State Bank and Trust Co., Evanston, Ill.....	\$ 2,334.26	Accounts Payable	\$ 1,533.37
Cash in savings accounts:		Membership dues prepaid ...	527.50
Central Trust Co., Cambridge, Mass..	\$ 3,742.26	Subscriptions prepaid	1,316.19
State Bank and Trust Co., Evanston, Ill....	3,378.93	Special membership campaign fund—	
	7,121.19	Balance, Dec. 13, 1924	\$ 4,205.63
Investments	24,661.75	Contributions during 1925	1,800.00
Interest accrued on investments	376.81	Total available	6,005.63
Membership dues receivable	2,278.75	Less—Campaign expenses	182.21
Less—Reserve for membership dues receivable	500.00		5,823.42
	1,778.75	Life memberships ...	6,075.00
Subscriptions receivable	241.25	Surplus	22,271.10
Accounts receivable	134.69		
Total sundry receivables	375.94		
Less—Reserve for doubtful receivables	138.03		
	237.91		
Paper stock	198.73		
Furniture and fixtures	992.36		
Less—Reserve for depreciation	135.18		
	857.18		
	\$37,566.58		
			\$37,566.58

Report of the Auditing Committee

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INCOME STATEMENT FOR THE FISCAL PERIOD DECEMBER 13, 1924, TO DECEMBER 12, 1925

Ordinary income:

Dues—

Membership dues	\$13,043.86
Less—Defaulted dues	451.25
	<u>\$12,592.61</u>
Subscribing and contributing membership dues...	1,657.50
	<u>\$14,250.11</u>

Other income:

Interest	\$ 1,400.98
Profits on sales of investments	65.73
Contribution, balance of Babson Prize Essay Fund	103.88
Sundry income	79.95
	<u>1,650.54</u>
	<u>\$15,900.65</u>

Ordinary outgo:

Secretary's salary	\$ 533.34
Office salaries	2,782.38
Stationery and office printing	256.63
Postage	511.59
Office supplies	129.40
Telephone and telegraph	61.57
Annual meeting	420.46
American Council of Learned Societies	139.90
Express and cartage	25.00
Expenses of committees	348.70
Depreciation, furniture and fixtures	79.39
Insurance, secretary's office	79.10
Moving and miscellaneous	530.77
	<u>5,898.23</u>

Excess of ordinary income \$10,002.42

Publication outgo:

Printing	\$ 5,725.20
Editorial	1,500.00
Review contributonal	1,133.50
Editorial expenses and supplies	2,163.88
Proceedings	1,176.69
Sundry expenses of printers	92.60
Insurance	56.00
	<u>\$11,847.87</u>

Publication income:

Subscriptions	\$ 2,562.33
Less—Defaulted subscriptions	216.25
	<u>\$ 2,346.08</u>
Sales of publications	766.16
	<u>\$ 3,112.24</u>
Excess of publication outgo	<u>\$ 8,735.63</u>

Net income for period \$ 1,266.79

SURPLUS ACCOUNT, DECEMBER 12, 1925

Balance, December 13, 1924 \$20,629.31

Additions:

An amount transferred from Life Memberships due to removal of life members during period	\$ 375.00
Net income as shown in the accompany income statement for the fiscal period beginning December 13, 1924, and ending December 12, 1925	1,266.79
	<u>\$ 1,641.79</u>

Surplus per balance sheet December 12, 1925 \$22,271.10

REPORT OF THE MANAGING EDITOR OF THE AMERICAN
ECONOMIC REVIEW FOR THE YEAR ENDING
DECEMBER, 1925

The cost of the REVIEW during the past year was \$10,510.39, as compared with \$9,802.86 in 1924. This is an increase of \$707.53. Nearly \$300 (\$293.31) was due to clerical assistance on account of increased salary and a change in assistant; \$91.50 was due to the purchase of a new typewriter; \$280.73 was due to printing costs. The increase in the latter item was caused by the printing of a larger number of copies, an average of 250 copies more per issue.

By principal items the cost of the REVIEW during 1925 was as follows:

Salary of editor	\$1,500.00
Clerical assistance	1,757.32
Supplies	406.56
Printing (including paper)	5,713.01
Payments to contributors	1,133.50
Total	\$10,510.39

On the basis of printing 4100 copies, the following budget for 1926 is submitted:

Printing	\$3,700.00
Reprints, postage, etc.	500.00
Paper	1,350.00
Editorial	1,500.00
Clerical	1,600.00
Supplies	350.00
Contributors	1,200.00
Total	\$10,200.00

The following persons have served as editors during the past year: Professor J. E. Le Rossignol and Dr. W. W. Stewart, whose terms expire this year; Professor A. P. Usher and Professor G. S. Watkins, whose terms expire in 1926; and Professor J. M. Clark and Dr. E. G. Nourse, whose terms expire in 1927.

In the abstracting of periodicals, Professor Arthur W. Hanson of the Massachusetts Institute of Technology has taken the place of Professor Martin J. Shugrue of the same institution. Dr. Harry Jerome of the University of Wisconsin has assumed the abstracting of journals in the field of statistics in place of Professor Bruce D. Mudgett of the University of Minnesota, who has gone abroad. Mrs. Marjorie Sheets Weber has discontinued the preparation of abstracts on shipping; and the place has not been filled. Dr. R. F. Foerster of Princeton University has abstracted Italian and Spanish journals since the establishment of the *Review*, but is resigning this work with the December issue. The place has not as yet been filled.

During the past year 129 persons have co-operated in the preparation of the REVIEW, including leading articles, communications, reviews, document notes, and periodical abstracts.

Appended are the comparative tables showing the distribution of contents and cost by principal items, in continuation of tables previously given.

DAVIS R. DEWEY,
Managing Editor.

TABLE 1.—PAGES GIVEN TO EACH SECTION

Year	Leading articles	Reviews	New books listed	Documents, reports, etc.	Periodical abstracts	Notes	Theses	Totals
1911	342	304	62	89	133	40	8	978
1912	291	298	101	110	186	41	11	1038
1913	347	268	104	141	167	43	8	1078
1914	327	243	136	113	166	35	10	1030
1915	314	257	90	142	144	42	14	1003
1916	388	256	91	90	140	46	13	1024
1917	378	192	110	127	120	42	15	984
1918	372	157	91	112	99	41	17	906
1919	373	163	154	103	95	47	12	948
1920	395	109	155	98	122	42	15	936
1921	331	103	133	39	117	38	11	772
1922	293	91	159	35	124	37	13	752
1923	298	122	184	26	113	43	14	800
1924	339	110	191	23	113	42	18	836
1925	325	131	178	27	110	38	23	832

TABLE 2.—EXPENDITURES

Year	Printing	Salary of editor	Payments to contributors	Clerical	Supplies	Totals
1911	\$2495.18	\$1500.00	\$1320.25	\$ 865.50	\$413.51	\$6730.59*
1912	3220.83	1500.00	1114.50	794.58	292.68	6922.90
1913	3328.01	1500.00	1268.35	983.09	325.10	7404.55
1914	3023.62	1500.00	1312.25	1236.29	459.18	7531.34
1915	2834.91	1500.00	1210.00	1171.87	286.86	7003.64
1916	3257.27	1500.00	1422.50	1173.93	339.86	7694.06
1917	3762.37	1500.00	1267.00	1151.30	326.01	8006.68
1918	3497.73	1500.00	1203.25	1260.06	332.73	7793.73
1919	5019.50	1500.00	1231.50	1325.93	347.84	9454.77
1920	6656.31	1500.00	1122.75	1595.64	307.20	11181.90
1921	5646.97	1500.00	64.50	1472.50	319.97	9003.94
1922	4795.28	1500.00	.....	1370.00	314.77	7980.05
1923	5032.59	1500.00	.....	1650.09	437.86	8620.54
1924	5423.28	1500.00	1110.25	1464.01	305.32	9802.86
1925	5713.01	1500.00	1133.50	1757.32	429.33	10533.16

*Includes \$136.15, traveling expenses of editors.

REPORT OF THE JOINT CENSUS ADVISORY COMMITTEE ON FEDERAL STATISTICS

The Joint Advisory Committee to the Director of the Census respectfully reports that one meeting of the Committee has been held during the year 1925, and in consequence there is very little of accomplishment to report to you to you by your representatives on this Committee.

The meeting referred to was held on the 27th and 28th of May. There were present all the members of the Committee, and the session was largely occupied with a discussion of the general problem of estimates of population during the intercensal period and such current problems as existed in connection with census reports on religious bodies, water transportation, and financial statistics of cities. Much of the three sessions was devoted to the progress of tabulation on the *Census of Agriculture* and the form and content of the reports to be issued relating to this *Census*.

It was the desire of the Director of the Census that a second meeting should be held in December, but this proved to be inexpedient because of the inability of all members to attend on a given date. The next meeting of the Joint Committee is likely, therefore, to occur in January, 1926.

Respectfully submitted,

WILLIAM S. ROSSITER, *Chairman*.

GEORGE F. WARREN.

ALLYN A. YOUNG.

WALTER F. WILLCOX.

Representing the American Economic Association.

REPORT OF THE REPRESENTATIVE ON THE BOARD OF DIRECTORS OF THE NATIONAL COUNCIL FOR THE SOCIAL STUDIES.

The noteworthy matters connected with the work of the National Council for the Social Studies for the year 1925 have been first, the establishment of seven committees through which the main work of the Council will be carried on; second, the formulation of a set of standards for teacher training in the field; and third, the vote of the National Education Association to give departmental status to the National Council.

A detailed statement of the work of the Council for the year is published over the signature of its Secretary in the December number of *The Historical Outlook*. The same statement carries a review of the five years of history of the National Council. Reference to this published statement makes unnecessary any extended comment by your representative on the Board of Directors.

The past achievements of the National Council, its recognition by the National Education Association, and its clear promise of future usefulness justify a recommendation that the American Economic Association authorize the continuance for 1926 of a representative upon the Board of Directors of the Council.

Respectfully submitted,

L. C. MARSHALL.

REPORT OF THE REPRESENTATIVES ON THE SOCIAL SCIENCE RESEARCH COUNCIL.

The Social Science Research Council was organized in 1923 by concurrent action of national associations interested in social research. This group at first included the American Economic Association, the American Sociological Society, the American Political Science Association, and the American Statistical Association. During the year 1925 the membership of the Council was increased by the addition of representatives from the American Psychological Association, the American Anthropological Association, and the American Historical Association.

During the year 1925 the Council appointed a special Committee on Problems and Policy for the purpose of considering certain special questions already before the Council, as well as others, and of canvassing the general policy to be followed by the Council. The Committee on Problems and Policy held a ten days' session at Dartmouth during the summer and considered at length the work of the Council in general and a number of specific problems in particular. As a result of this conference the Council decided to organize a standing committee known as the Problems and Policy Committee to consist of six members chosen by the Executive Committee for a term of three years. This committee under the general direction of the Council will have power to devise and recommend research problems referred to it by the Council, and any other problems as the Committee may see fit to recommend. The committee will ordinarily deal with each of the following aspects of the problems considered:

1. The practicability of the problem for scientific investigation.
2. Adequateness and appropriateness of the technical plans and budget involved.
3. The selection of the personnel for the supervision of the problem.

The committee will have power to appoint special advisory committees, of ordinarily not more than five, to consider the formulation of a problem, to analyze the problem into parts, susceptibility of scientific treatment, to study the character and scope of the investigations which seem desirable, and to suggest agencies whose co-operation can profitably be enlisted in the work. This committee now consists of the following members:

Prof. A. B. Hall, University of Wisconsin, Chairman.

Prof. Edwin F. Gay, Harvard University.

Mr. Shelby M. Harrison, Russell Sage Foundation.

Prof. Clark Wissler, Yale University.

Dr. H. G. Moulton, Institute of Economics.

Prof. R. S. Woodworth, Columbia University.

The Committee recommended and the Council approved the setting up of committees on research in the field of alcoholism, in the negro problem, the study of crime, in the field of agricultural economics, and in certain significant phases of social and industrial relationships.

On the recommendation of the committee, the Council at its last meeting also adopted the following general policies in respect to research:

A. Ordinarily it will be the policy of the Council not to undertake investigation directly other than preliminary studies.

B. Ordinarily the Council should deal only with such problems as involve two or more disciplines.

C. Generally it should be the policy of the Council to serve only as a clearing house in matters of research in the social science field.

Furthermore, it was determined by the Council to undertake the gathering of pertinent information concerning research projects, personnel, funds, and endowments available for research. It was understood that the Council would co-operate with any other agencies interested or engaged in similar enterprise in overlapping fields.

During the year 1925 funds were made available to the Council for the purpose of awarding fellowships to advanced students desiring to carry on social research in the field of the social sciences broadly construed. Broadly speaking, these fellowships correspond to those awarded by the National Research Council. Evidence of exceptional ability in research must be presented by each applicant, together with a definite outline of a project giving promise of scientific accomplishments. The terms of the fellowship may range from several months to as much as two years, depending upon the character and requirements of the problem. The work of the fellows is subject to the supervision of the Council's Committee on Fellowships, of which Professor Wesley C. Mitchell is Chairman and Professor F. S. Chapin of the University of Minnesota is Secretary. A substantial fund to cover these fellowships for a period of five years has been set aside by the Laura Spelman Rockefeller Memorial. In the year 1925 the sum of \$49,000 was available for this purpose. The first awards of the Council are as follows:

LUTHER LEE BERNARD, PH.D., Professor of Sociology, University of Minnesota.

Problem: A study of the development of the social sciences in Argentina with special reference to the economic, political, and other cultural circumstances under which they were developed.

CHARLES WARREN EVERETT, M.A., Instructor in Department of English and Comparative Literature, Columbia University.

Problem: Life of Jeremy Bentham and the editing of his unpublished manuscripts.

HAROLD F. GOSNELL, PH.D., Instructor in Political Science, University of Chicago.

Problem: Factors determining the extent of popular participation in elections in typical European States.

MARCUS LEE HANSEN, PH.D., Assistant Professor of History, Smith College.

Problem: A basic study of the origins of the foreign elements in the settlement of the Upper Mississippi Valley.

JOSEPH PRATT HARRIS, PH.D., Instructor in Political Science, University of Wisconsin.

Problem: Workings of election registration systems in the United States.

WILLIAM JAFFÉ, Docteur en Droit, Tutor in French and Economics, College of the City of New York.

Problem: The Industrial Revolution in France.

EDGAR W. KNIGHT, PH.D., Professor of Education, University of North Carolina.

Problem: A study of the Folk High Schools in Scandinavian Countries, especially Denmark, Sweden, and Finland.

SIMON S. KUZNETS, M.A., (Candidate for Ph.D., 1925, Columbia). Fellow in Economics, Columbia University.

Problem: Secular trends in economic theory, their interrelations and their bearing upon cyclical fluctuations.

ROSE S. MALMUD, M.A., Graduate student, Columbia University.

Problem: The psychology of literary ability.

THOMAS P. MARTIN, Ph.D., Associate Professor of American History, University of Texas.

Problem: A study of Anglo-American relations as influenced by economic, political, and social forces playing within and between the two peoples.

HUTZEL METZGER, M.S., (Candidate for Ph.D., 1925, University of Minnesota). Part time Research assistant, University of Minnesota.

Problem: An analysis of the price of certain farm products, with a view to deriving information that will promote the better adjustment of agricultural production.

ERNEST R. MOWRER, Ph.D., Assistant Professor of Sociology, Ohio Wesleyan University.

Problem: Family disorganization as a socially inherited behavior pattern.

MRS. MILDRED DENNETT MUDGETT, Ph.D., Assistant Professor of Sociology, University of Minnesota.

Problem: Legislation affecting the pre-school child in certain European Countries.

STERLING DENHARD SPERO, Ph.D., Fellow, New School for Social Research.

Problem: The position of the negro in industry.

DOROTHY SWAINE THOMAS, Ph.D., Research Assistant, Federal Reserve Bank of New York.

Problem: The economic factor in crime.

During the last year the Committee on Human Migration, of which Dean Abbott is chairman, continued the development of its projects. One unit of the plan was undertaken by the National Bureau of Economic Research under whose general direction Professor Jerome of the University of Wisconsin was engaged in the study of the relation of the mechanization of industry to migration. This project was continued during the year 1925-1926 and it will be completed by July 1, 1926.

The Committee also undertook a statistical study of the basic movements in migration in recent times under the direction of Professor Walter Willcox of Cornell University. In co-operation with the National Research Council's Committee on Human Migration (of which Professor Stratton is chairman) a comprehensive plan is now being worked out and it is hoped that the plan may be completed within a short time and its execution vigorously pushed forward. The co-operation of the Committees from the two councils offers an excellent example of the possibilities and also the difficulties of bringing about successful co-operation between those interested in the social implications of natural science and those interested in social science.

The Committee on International News and Communication, of which Mr. Walter S. Rogers is chairman, continued the development of its pro-

gram during the year 1925. An interesting offshoot of the work of this Committee is the establishment in 1925 of an Institute of Current World Events, a foundation which will make possible a detailed study of and reporting on current social events in a wide range of nations. This foundation of which Mr. Rogers is director will undertake to develop personnel for the purpose of studying questions of news and public opinion in different parts of the world and of reporting their findings in the United States by means of articles, addresses, and discussions. This project is now just beginning but is already financed on a scale sufficiently broad and generous to make it possible to test out its possibilities. While this result was not anticipated when the Council created the Committee, it illustrates the possibilities of indirect development in collateral fields.

The Committee on Indexing and Digesting of the session laws of the various states, of which Professor Joseph P. Chamberlin of Columbia University is in charge, has continued its activities during the year 1925 and has made substantial progress. An appropriate bill has been carefully drawn and the whole question will come before the House Judiciary Committee during the coming winter. It is hoped that it will be possible to make progress with the financing of this very significant project. Through the efforts of the committee the support of a large number of organizations has been secured and there is every reason to believe that the work of the Committee will be successful in the near future. This project if carried through would constitute an achievement of very great significance in the practical study of American legislation.

The Committee on Social Science Abstracts of which Professor F. S. Chapin of the University of Minnesota is chairman is still engaged in the development and financing of its plan. The Committee's activities during the year 1925 include:

(1) The preparation of sample abstracts of social science articles drawn from the fields of Anthropology, Economics, Political Science, and Sociology. This material will be published in the form of a dummy for distribution among members of the Social Science Societies in order to ascertain the interest in a possible Journal or Review of Social Science Abstracts and to determine what support may be obtained in the form of individual subscriptions for such a publication.

(2) Promising contacts have been established with several publishing houses regarding the publication of a Journal or Review of Social Science Abstracts as soon as a budget and editorial arrangements can be worked out. With assurances of some subscriptions and a moderate endowment the committee believes that a publishing house will be found willing to undertake the publishing of this Journal.

(3) The Committee has also undertaken to obtain a subvention to establish a Journal or Review of Social Science Abstracts.

On the whole the Council has made substantial progress in 1925 both in the direction of more effective organization and in dealing with specific types of problems. It is the hope of the members of the Council that it may be increasingly useful to students of social science and that the various constituent organizations and their respective members may find it helpful in the organization and development of technical social research. The Council is in an experimental state, and suggestions for making undertakings

and methods more valuable to the social sciences or to those interested in the social implications of natural science are welcomed.

Respectfully submitted,

GEORGE E. BARNETT.

JOHN R. COMMONS.

HORACE SECRIST.

ABSTRACT FROM THE ANNUAL REPORT OF THE AMERICAN COUNCIL
OF LEARNED SOCIETIES

The activities of the American Council of Learned Societies (A. C. L. S.) normally fall into two categories: (1) activities of international co-operation arising chiefly out of the Council's membership in the Union Académique Internationale (U. A. I.); (2) domestic activities having for their object the development of relations between the constituent societies and the promotion of their interests, and the advancement of the humanistic and social sciences in the United States.

Among the international activities the following may be listed: Corpus of Ancient Vases, Dictionary of Medieval Latin, Dictionary of Late Medieval British Latin, Dictionary of Indonesian Customary Law.

The American delegates to the U. A. I. presented from the A. C. L. S. a proposal for an International Survey of Current Bibliography; also proposals that the U. A. I. undertake "enterprises in the fields of modern history and the social sciences."

The A. C. L. S. has been much interested in the organization in this country of a national committee on intellectual co-operation, the function of which should be to further the work of the International Committee of the League of Nations. The American Committee is composed of the following members: R. A. Milliken, chairman, Vernon Kellogg, secretary, James H. Breasted, Charles W. Eliot, Virginia C. Gildersleeve, George E. Hale, Charles H. Haskins, Charles R. Mann, Herbert Putnam, Elihu Root, Lorado Taft, and Augustus Trowbridge.

Steps have been taken to distribute to foreign scholars and libraries descriptive lists of American learned periodicals in the humanistic and social sciences, and to secure, so far as possible, reduced subscription rates to foreign libraries.

The domestic activities of the A. C. L. S. are described in the Bulletins of the organization. These Bulletins are distributed gratuitously to the officers and governing boards of the constituent societies, to the more important learned journals, and libraries, and to the foreign academies affiliated with the U. A. I.; members of the constituent societies can secure copies on request.

Among the domestic activities the following may be listed: "Survey of Learned Societies"; assistance in the founding of "Speculum," a Journal of Medieval Studies; work on a catalogue of Foreign Manuscripts in American Libraries; Dictionary of American Biography. A subvention of \$500,000 from the New York Times has made this undertaking possible and the work is progressing under the editorship of Professor Allen Johnson of Yale University.

Through a grant from the Laura Spelman Rockefeller Memorial an annual subvention of \$5,000 has been made available for the next three years, and will be used in small grants not exceeding \$300 in aiding mature scholars in their research projects in the humanistic and social sciences. The grants will be available for specific purposes, as travel, assistance, appliances, copies, photographs, etc.

A survey of research in the fields covered by the constituent societies composing the A. C. L. S. will be made during the year 1926. Professor Frederic A. Ogg of the University of Wisconsin will have charge of this survey. The survey will include projects of research being carried on by societies, academies, institutions, foundations, governmental agencies, research bureaus, etc., as well as by individual scholars. It is proposed to make as complete a list as possible of all funds, fellowships, prizes, etc. which are available for the aid and encouragement of research in the social sciences.

In co-operation with the National Research Council the A. C. L. S. is planning a directory of American Learned Societies and institutions.

Respectfully submitted,

THOMAS W. PAGE.

WALTER W. WILLCOX.

REPORT OF THE COMMITTEE ON AN ENCYCLOPEDIA OF THE SOCIAL SCIENCES

The project for an encyclopedia of the social sciences has been under consideration for a period of two years. A joint committee composed of representatives from the American Economic Association, American Sociological Society, American Anthropological Society, American Statistical Association, American Association of Social Workers, American Historical Association, and American Political Science Association, has had the undertaking under advisement and has worked through an Executive Committee composed of Edwin R. A. Seligman, American Economic Association, chairman; Clark Wissler, Anthropological Association; A. A. Goldenweiser, American Sociological Society; William F. Ogburn, American Statistical Association; Mary van Kleeck, American Social Workers; Carlton J. H. Hayes, American Historical Association; John A. Fairlie, American Political Science Association.

The following report is the work of the Executive Committee, and is intended to be submitted to each of the interested Associations:

Your committee has carefully considered the project of an encyclopedia of the social sciences and has come to the following conclusions:

(1) If such an encyclopedia is to be undertaken it should cover, or at all events deal with, certain aspects of the following sciences: Economics, Sociology, Anthropology, Statistics, Political Science, History, Jurisprudence, Psychology, Geography, Biology, Philosophy, Ethics, Education, Comparative Philology, Aesthetics, and Religion. It should, in short, include all those sciences which are either primarily social in character and content or which have certain social connotations. A distinction must, however, be made between the social sciences proper, which deal exclusively with social matters, and the other sciences. In the first group would naturally fall Economics and Sociology. The other group might well be divided into two subordinate classes. One class, such as Anthropology, Statistics, and Political Science, is largely, but not wholly, social in character. Accordingly only a part of what is technically termed Political Science, Statistics, or Anthropology should be included in any such encyclopedia of the social sciences. The second class is composed of the remaining sciences mentioned above, the social implications of which constitute a minor, although still important, part of the sciences in question. They would accordingly be represented in the proposed encyclopedia only through special articles or in special ways. History, for instance, would be represented only to the extent that historical episodes or methods were of special importance to the social student. It is, however, precisely the social aspects of History, of Jurisprudence, of Psychology, of Geography, of Biology, of Anthropology, of Ethics, of Linguistics, and of Aesthetics, which have come to the front in recent years, and it is the interrelations of these sciences with the more specific social sciences that it is especially important to emphasize.

(2) To the question whether such an encyclopedia is desirable the answer is an unqualified affirmative. At no time have the interrelations of all these sciences attracted as much interest as at present. It is indeed true that many of the sciences in question are still inchoate or at all events far from complete, and that the conclusions, therefore, must be largely tentative in character. But this is in our opinion no reason for refusing to make an attempt to take stock of our present knowledge and to recount what has actually been achieved. Science is always progressive; no science can at any time ever be considered as more than a first approximation to truth, and much can be gained from a frank, even though tentative, statement of our actual acquaintance with the content of the more specifically social sciences and of the interrelations of all the sciences with social connotations. The time has come, in our opinion, when such a project ought to be undertaken.

(3) Is such an encyclopedia feasible? This again we answer in the affirmative. Although the number of first-class scholars is in every science always necessarily limited, we believe that there exists at present an adequate number of competent investigators to justify such a project. Especially is this true if the encyclopedia be representative not simply of American scholarship, but of Anglo-Saxon scholarship, with representatives on the editorial board from the British Empire as well as from the United States, and with contributions on special topics from the more distinguished foreign scholars on the European Continent and elsewhere. From the point of view of editors and contributors we conclude that such a project is now feasible.

(4) For whom should such an encyclopedia be intended? It is our opinion that

there are two classes here to be considered. In the first place, the encyclopedia would be intended primarily for scholars. The student of any particular science would find in it not only factual and methodological information of value, but would also have his attention called to the relation of his own particular science to the other sciences involved. In the second place, however, the encyclopedia ought to appeal to a much more numerous class which, for lack of a better term, might be called the *intelligentsia* in the various countries. It ought to be a standard work of reference in every public library, and in every important newspaper office, so that the fundamental ideas will gradually percolate down to the wider public. The consequence is that the encyclopedia would have to be free from all scientific jargon and would have to be written in such a way as to appeal to the average intelligence. This would also ensure a much wider sale than would otherwise be possible.

(5) Shall the encyclopedia be primarily a dictionary or primarily a handbook as is customary in Germany? We have concluded that it ought to be neither the one nor the other; or, rather, that it ought to be both. That is to say, the encyclopedia ought to combine the best characteristics of both the dictionary and the handbook. This means:

(a) That the alphabetical method be followed; but

(b) That the arrangement be entirely flexible so as to contain not only very short articles of a few lines or paragraphs, but also longer articles of perhaps fifty or seventy-five pages which would permit of thoroughgoing and original contributions.

In order, however, to include what is best in the ordinary handbook, arrangements should be made for general surveys of each important science or of the interrelations of the various sciences in a series of contributions which might be published either at the beginning or at the end of the work. A carefully devised index or series of indexes would also facilitate a comprehensive survey of each particular field.

(6) Ought biographies to be included? Your committee answers in the affirmative. The biographies ought to comprise not alone deceased, but also living notabilities in all of the various sciences in question. The length of the biography should be proportioned to the importance of the scholar in question.

(7) Ought a bibliography to be included? Your committee believes that every longer article at least should have a short, well-selected bibliography and that in addition the final volume ought to contain longer bibliographies under special topics. It is even open to question whether it might not be desirable to provide for annual supplements containing the more important bibliography on each particular subject.

(8) What should be the size of the encyclopedia? Your committee has carefully studied all of the important existing encyclopedias. Many of these seem to be inadequate and unsatisfactory. Some of them, especially a few of the recent French encyclopedias, like the Catholic Encyclopedia, and the Encyclopedia on Greek and Roman Antiquities, while models of their kind, have nevertheless appeared to be too comprehensive and detailed for our purpose. We believe that the proposed encyclopedia should contain about ten volumes, each volume to contain about 800,000 words. Modern technique has rendered possible from the point of view both of type and of thin paper something entirely different from the bulky quarto or folio volumes of the past. If we were to choose a ten point De Vinne type to be set without leading, and if we were to have a two column page, approximately 5 x 7½ inches including running head, we could have a two-column page of about 365 words to a column or 730 words to a page which, with about 1,100 pages of a volume of the ordinary manageable octavo size, would contain about 800,000 words. The whole work, consisting of ten volumes, would therefore contain about 8,000,000 words which in our opinion would be adequate, although not excessive, for an enterprise of this kind. At \$7.50 a volume, the cost would accordingly be about \$75. Inasmuch as it would take several years to complete, this sum would probably be within the possibilities of the intending purchasers.

(9) What time would be required? In our opinion a work of such huge proportions would take about five or six years to bring to completion, provided that all the financial and editorial demands were satisfied.

(10) What would such an encyclopedia cost? The cost would consist of three elements: recompense to contributors; editorial outlays; and expenses of manufacture and publication.

(a) With reference to contributors, your committee believe that the pay should be about 2½ cents a word, i. e., about \$9.00 a column, or \$18.00 a page. This

is approximately what is now paid for scientific contributions. If it should turn out to be a little less than the average pay, the contributors would be compensated by the knowledge of having a part in so significant an enterprise. At this rate of remuneration the contributions would cost about \$200,000.

(b) The editorial outlays are roughly estimated at about \$40,000 a year for five years, or a total of \$200,000.

(c) The expenses of manufacture and distribution would be about \$110,000. In other words, the total expenditure would be about half a million dollars. This we think a conservative estimate.

(11) How could the enterprise be financed?

From various conversations which the chairman of the Committee has had, we have reason to believe that the expenses of manufacture might be undertaken by some large publishing house, especially if it were possible for the various associations involved or for outside parties to guarantee the sale of a certain number of copies. A sale of about two thousand copies would cover the cost of manufacture and distribution. With reference to the remaining four hundred thousand assistance would naturally have to be sought from individuals or foundations. From similar conversations on the part of the chairman of the executive committee, we believe that it is not entirely unreasonable to think that such financial assistance might be secured. As to this, however, everything would depend upon the way in which the project was worked out.

Taking it all in all, therefore, your committee have come to the conclusions which are embodied in the following resolutions, such resolutions to be submitted by each committee to its respective Association.

RESOLVED: That the report of the executive committee on the proposed encyclopedia of the social sciences be accepted and approved.

RESOLVED: That the committee of this Association be continued in order further to elaborate the project with a hope of permitting of its ultimate completion.

RESOLVED: That an appropriation of \$250 be made by this Association for the year 1926 to the executive committee for necessary expenses with the understanding that if the project is finally consummated, the sums so advanced by each Association be reimbursed out of the editorial expenses.

RESOLVED: That the committee of this Association be empowered to ascertain as to how many copies of the proposed encyclopedia might be subscribed by members of this Association at a reduced rate, so as to permit of a guarantee of a certain number of copies to be made by this Association.

Respectfully submitted,

EDWIN R. A. SELIGMAN, Chairman.
EDWIN F. GAY.
CLIVE DAY.

Dec. 10, 1925.

REPORT OF THE FINANCE COMMITTEE

At the April meeting of the Executive Committee provision was made for the appointment of a standing Finance Committee to supervise the investments of the Association. The President appointed, under date of July 8, C. H. Crennan of the Continental and Commercial National Bank of Chicago, Chairman, and Waddill Catchings of Coldman Sachs and Company, New York—these two with the Treasurer to constitute the committee. A list of the holdings of the Association was submitted and the following securities were recommended to be sold:

	<i>Par</i>	<i>Cost</i>	<i>Sold</i>
Chicago Joint Stock Land Bank 5½s	\$4,000.00	\$4,040.00	\$4,160.00
Los Angeles Sewerage 4¾s	2,000.00	2,091.97	2,000.00
Imperial Japanese Government 6½s	2,000.00	1,850.00	1,870.00

The following securities were recommended as suitable for the investment of the funds of the Association and were accordingly purchased:

	<i>Par</i>	<i>Cost</i>
Armour and Company 5½s	\$2,000.00	\$1,870.00
Illinois Bell Telephone Company 5s	2,000.00	2,007.50
Commonwealth Edison Company 5s	2,000.00	2,050.00
Illinois Central Joint 5s	2,000.00	1,995.00
Standard Milling Company 5½s	2,000.00	1,945.00
Sheffield Farms 6½s	1,000.00	1,071.00
Pacific Mills, Ltd. 6s	2,000.00	2,040.00

The Treasurer was advised to keep the funds of the Association that are needed for operating expenses invested in certificates of deposits with such maturities as will enable him to meet the obligations of the Association. This method of handling any funds, temporarily idle, will give the Association the maximum interest yield.

Respectfully submitted,

C. H. CRENNAN, *Chairman*.
WADDILL CATCHINGS.
FREDERICK S. DEIBLER.



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OF THE

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1926

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- **Handbook of the Association, 1911. Pp. 69.

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- Supplement.—Handbook of the Association, 1916. .75

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